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IDLINGS IN ARCADIA



TUG OF WAR—TOAD V YOUNG MOORHEN

IDLINGS IN ARCADIA

By E. D. CUMING

With Illustrations by

J. A. SHEPHERD

Authors of

THE ARCADIAN CALENDAR

LONDON

JOHN MURRAY, ALBEMARLE STREET, W.

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FOREWORD

DURING many years past I have kept notes on birds and animals which reveal habits little known, furnish examples of intelligence and record abnormal doings. Many of these possess more than ephemeral interest, and it seems worth while to give a selection this new lease of life, in the hope that the pleasure they have afforded their collector may be shared by others.

My best thanks are due to the Editors of the several journals who have kindly allowed me to quote from their columns.

It is a great pleasure to enjoy again the collaboration of Mr. Shepherd.

E. D. CUMING.

APPLEFORD,
BERKSHIRE.
1934.



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CHAPTER ONE

Pertinacious sparrows. Deserting missel thrush. Differing characters of birds. Sensible birds. Stupid birds. Ingenious great tits. Removal of young from nests. The maternal instinct. Grey squirrels. Smooth snake caught by cat. Red squirrels. Rooks' doings.



CHAPTER ONE

TENACITY of purpose is a quality that compels respect ; but it can be misdirected ; and the house sparrows, who have obliged me to pull down for the sixth time the nest they seek to build in the gutter under a projecting tile, display obstinacy rather than firmness of purpose. Observe :—their fourth effort was cleared away at noon ; at six o'clock they had laid a new foundation ; their fifth. That was cleared away at once, and by eleven o'clock next morning the beginnings of their sixth nest peered raggedly from the same spot. Nests cannot be permitted in gutters, or the steady persistence of those sparrows should be rewarded by leave to stay.

How variable the attitude of birds toward human interference ! Stern discouragement notwithstanding, those sparrows returned to the charge six several times, undaunted. Now, let you lay but a finger on the abode of the wren, finished or unfinished, and she turns her back on it as upon a threshold that is desecrated ; she forfeits the work of her beak at a glance and goes elsewhere. Certainly it does not take any bird long to build the nest, even so neat and elaborate a structure as the wren's, so perhaps those who are so particular think less about the trouble than they might. A bird frightened into desertion of nest and eggs may be at the pains to destroy the latter before leaving ; a curious case of this kind occurred

at Castletownshend: a friend had been using his telescope to look at a steamer passing far out at sea, and it chanced that he left the instrument on its stand pointing directly at the nest of a missel thrush in a tree on the slope below the verandah, ten or a dozen yards away. The hen had begun to sit; and a day or two after my friend had been using the telescope he noticed that she was not on her nest: when she did not return the gardener was sent up to see if there were eggs. There were; but before deserting the missel thrush had pierced a hole in each; a single small hole obviously done with her beak. It is not worth speculating on the reason which moved the bird thus to destroy her eggs; usually the deserting parent leaves them to be rendered infertile by exposure. The telescope pointing directly at the nest was too much for her nerves.

Individual birds differ in character, temperament and sense. A few days ago in idle mood I watched two pairs of sparrows busy nest-building in a creeper against the house; in either case the hen was doing the construction, the cock bringing materials; and the nature of each hen was reflected in her proceedings. No. 1 was not to be satisfied at any price; of a dozen straws and threads of hay she accepted one, dropped the others as useless, and scolded. Cock No. 2 was thus relieved of much labour; he did not trouble to fly afield for straws and hay, he simply picked up what No. 1 hen had discarded and took them up to his wife who worked them into her nest without protest or demur. It was an object lesson in bird character; a fussy wife and weak-minded husband on the one side, a sensible practical couple on the other. Cock No. 1 should have put his foot down and insisted on use being made of his bringings.

Some birds display common sense ; others do not. An instance of the former occurred in the case of goldfinches who built in the lateral fork of a bough seven or eight feet above the ground in our garden at Castletownshend. The prevailing wind, often very strong, blows from the south-west, and the goldfinches realised the risk to their nest ; to make it safe they bound it firmly to the supporting twigs with lengths of bast, three distinct fastenings, and—this is the point—only on the south-west side. The nest was conspicuous enough to any passer-by, but birds in Ireland (other than the wren at Christmas-time) have nothing to fear from predatory Man or nest-harrying youth. There be those who maintain that the boys are too lazy, but we will not go into that.

Another example :—house martins built under the eaves of a house, so near the window of a room occupied by a schoolboy that he was able to reach it ; and he did reach it, putting in a finger to ascertain whether there were eggs. Less sensible martins would have abandoned that dwelling and erected another beyond reach of youthful fingers ; not so this couple ; they simply built up the entrance accessible from the window and opened another on the opposite side.

So much for good sense. Now for an example of the reverse :—in *The Times* of 20th May 1931 Mr. G. W. Pierce told how he had seen the nest of a blue tit in an iron rick staddle (pipe), underneath which were no fewer than four other nests, old ones, each containing the remains of a dead brood. It was obvious that the young birds had not been able to fly up the pipe and that the parents did not know how to help them ; hence the sad fate of those four successive families. The strange thing was

that the parent birds had never profited by experience ; year after year, with that pitiful proof of ineptitude before their eyes, they had built again and yet again in that pipe, lacking the sense to understand that they could not bring their young out of what amounted to a trap—to birds with no ingenuity.

Fledglings can be extracted from pipes by parents endowed with sense ; witness the case of those great tits described by Mr. R. C. K. Ensor in *The Times* of 25th May 1931. The birds nested in a ventilation pipe 4 inches in diameter and 6 feet high ; and when the young ones proclaimed readiness to enter the world on their own account a parent went down and brought up the family, one by one, on his, or her, back while the other parent sat at the top to shepherd each arrival into security in the honeysuckle wherewith the pipe was clad. Mr. Ensor noticed the metallic hum caused by the wings against the pipe as the laden tit fluttered up.

The performance of that great tit is more worthy of note than that of some other birds who help their young out of the nest ; in every other case known to me the fledgling has only to be helped down, whereas that meritorious great tit carried her children up—perpendicularly up. The methods adopted by some birds in this business are crude to a degree ; the guillemot has been seen to take her one chick by the neck and bring it down thus to the sea from the rock ledge. The wild duck will help her chicks down when the nest is so situate as to make aid necessary ; whether she does it with beak or legs, or on her back has not, I think, been ascertained ; but we may suspect that the legs are used for carriage in these cases ; the woodcock, as we all know, carries her young one between her thighs when changing her locality, so

why not other birds with strong legs such as Providence has bestowed on them that swim?

Strangely *compelling* is the maternal instinct! The urge to mother something is overmastering at times; whence the otherwise gratuitous conduct of that robin I saw bringing worms to a nestful of young thrushes a day or two ago? The legitimate parents were in attendance; there was no discoverable reason why a robin should undertake work not hers; for such doings there can be but one explanation—the maternal instinct craving outlet:—

Childless myself, with strong maternal feeling
Think me not meddlesome nor over-bold
If I respond to infant voice appealing,
For chicks unfledged are liable to cold.

A feather-headed mother leaves them wailing
To flirt, it may be, with some gay young cock;
Suppose she, late returning, found them ailing?
How she would suffer from the shame and shock!

So I, domestic occupation needing,
Will take it on myself to fill each crop;
And when the family have finished feeding
To keep them warm I'll take my seat on top.

The temptation to pry thus into that robin's mind, and read her thoughts, is irresistible.

The domestic fowl is the bird that suffers most from this craving; in her it sometimes takes a form that creates suspicion of mental deficiency; there was a hen in whose favourite box a cat elected to lay up her kittens; the bird, misled we will charitably suppose, by the circumstance that she deposited eggs there from time to time, became obsessed with the notion that the kittens were her own progeny, and fought daily with the cat for

possession ; and until the farmer's maid took the part of the cat that hen had the best of it. A contrary case occurs to mind ; that of a too motherly cat adopting a couple of hen's eggs, hatching them out and trying to mother the resultant chickens. Animals are as eccentric as birds in this connection ; witness that case of the Glasgow cat who nursed a young rat with three kittens of her own ; witness also the conduct of our Juliet, a cat of great beauty but small intelligence ; she was expecting a litter and her brother, an ardent and successful sportscat (Well ? If "*sportsman*", why not sportscat ?) presented her with a field-mouse he had crippled when catching ; Juliet was found in an armchair in the drawing-room tending that maimed mouse with a solicitude that advertised her conviction that this was the first of the family which arrived an hour or two later. Perhaps it is unfair to mention this temporary aberration ; a cat in the state of expectancy is hardly responsible for her actions. There is record of one who, her kittens being destroyed, gathered to her bosom five young mice and on them bestowed the outpourings of a too-maternal heart. For sheer determination to replace lost progeny, however, the palm must be awarded to a retriever. She brought forth ten puppies ; and her owner, thinking such a family would be more than she could properly nurse, had five of them drowned. That large-hearted retriever did not appreciate this attempt to spare her ; she raided a sty and carried off eight very young sucking pigs to nurse with her own offspring. The proceeding was the more noteworthy as she had to jump a fairly high wall to get them, and do battle with the indignant sow. Whether her arithmetic was faulty or she wanted to show the magnitude of her capacity as nurse, cannot be said.



THE FLIRTATIOUS THRUSH AND THOUGHTFUL ROBIN

Lest it be thought that female birds and animals are peculiar in this regard it will be right to mention an incident reported in *Country Life* of 30th June 1906. It was a cock pheasant who, forgetting the dignity of his sex, took his place on a nest of eggs and sat thereon. The gamekeeper who saw him kept his doings under observation; and in due time saw that cock pheasant going off with the chicks he had hatched out, for all the world as though he had been their mother. We can only conclude that the bird was not in his right mind; cock pheasants are more likely to kill young chicks than adopt them.

A lady who takes her pleasure in Kensington Gardens and has been cultivating the goodwill of the grey squirrels there to be found, asks if we shouldn't like some here ("You would *love* them," is her expression). The answer is in the negative; the emphatic negative. As a matter of fact when we came to Appleford a pair of those tree-rats had their abode in our best walnut tree, and made their presence felt; when the nuts began to swell the grey squirrels gnawed through the husk of every nut they could reach, tasted the kernel, then waiting till someone passed below, threw the salvage at him; glorying, I take it, in the fact that as the nut was not good enough for them they had been at pains to spoil it for anyone else. The pair must have destroyed more than half the crop before the end came; it was our sportscat who brought it about; he caught one, I suspect among the cabbages whither those tree-rats oftentimes resorted, and brought it indoors to be admired; very proud of his capture was the cat, and indeed it was a creditable performance, for the grey squirrel is heavy, strong, and bites hard. His self-satisfaction was hardly greater when he

captured a smooth snake and brought that, mangled but wriggling still, into the dining-room. The species is uncommon, in these parts at all events, but his pride in the achievement is not to be assigned to knowledge that he was bringing a rarity, meet gift for the Natural History Museum. The remains would have been sent thither had their condition betrayed less definitely the trouble the cat had been at to catch that snake.

But it was grey squirrels that engaged attention ; the death of the one was followed by the disappearance, unmourned, of its mate, and none have been seen since. The objection to this naturalised alien from America is that it drives away our own red squirrel ; the grey species is stouter and stronger and has a larger appetite—if the depredations on that walnut tree be any guide—and if he has not so far done harm in plantations by eating the young shoots of trees it is only because there are fewer of him than of the red squirrel. The latter, needless to say, wears not the white flower of a blameless life ; where numerous the mischief he does is serious. Such was the damage done to the young trees on new plantations in the Highlands many years ago that landed proprietors banded themselves together as a club, sworn to kill them down ; and during the ten years 1903–12 as many as 46,000 are said to have been destroyed. And if the little red squirrel can make himself a plague, how much worse will not be the grey, larger, stronger and hungrier ? Many good things come out of the United States, but grey squirrels are not among them. It is unfortunate that the Zoological Society did not take better precautions against the escape of the creatures when those seven pairs were acquired in 1905.

Touching the walnuts : the rooks take an occasional

unripe nut, carrying it away to hide, in some hole in the fields ; whether they ever find their booty again is another thing ; probably they don't ; but if it please a rook to steal a nut now and then we will not complain ; despite his faults, abundantly manifest to them whose garden is practically overshadowed by a rookery, I have a weakness for rooks : theirs is a peaceable community on the whole—that is when all have finished nest-building, and disputes over eligible sites between, and stick-stealing from, neighbours are at an end. It is hard to say which of these two bones of contention gives rise to most trouble. I watched two pairs one day last March when building was at its height ; a site had been chosen rather apart, so it was easy to keep the proceedings under observation ; a few sticks had been laid, and it was evident that trouble had arisen either over some particular stick or over the rightful ownership of that particular site ; and the dispute developed into a fierce fight ; there was not much squabbling, the birds did not waste breath talking ; they were busy with beak, claw and wing ; vigorously pecking and buffeting ; now one, now the other, combatant falling a few feet till he caught foothold on a convenient bough. The duel went on for long, interrupted by occasional excursions to bring twigs, the ladies remaining on guard over that disputed foundation. In the words of the Bab Ballad, “ I don't know how they settled it.” A passion for offering unasked advice is a prolific cause of unpleasantness in the rookery ; it is naturally resented and voices rise ; birds which have nothing whatever to do with the business, whatever it may be, cease work and close in on adviser and advisee ; uproar and a battle royal follows. How is it possible to tell that rooks who have nothing to do with the matter join in ? Thus :—there

is one rook with a peculiar voice—I am inclined to think the bird once suffered from bronchitis and it has permanently affected his larynx—and when two rooks with normal voices start bickering, that bronchitic subject draws nearer and nearer the disputants to put in his word—words. When a rook has had enough of it he withdraws from the battle, flies round and returns to his own place by devious ways. Those birds who have not joined in the fray caw encouragement to those engaged in it. There is much human nature in rooks. It is to be wished, though, that they would talk less at night; the silence that reigns under the stars is broken by a drowsy “caw” in the elms; another voice replies; and another, louder; more chime in, and within half a minute the whole colony are giving tongue. It may be, of course, that the first speaker has the habit of talking in his sleep, but really that is no reason why all his friends should wake up and loudly demand what ails him. The clamour continues for five minutes, more or less, usually more, and then silence prevails; until another rook talks in his sleep, or perchance has a happy thought he can’t keep to himself, and the row starts again.

It would be interesting to know on what principle, if any, rooks set about their annual nesting arrangements. Last year, in February seven nests remained; on 2nd March these were reduced to five, for the rooks were beginning then to think—or talk—about building; on 19th March there were seventeen nests, and on the 22nd nineteen; and when all had finished on 5th April there were either twenty-one or twenty-two (it is not possible to make out whether one large clump is a single abode or a semi-detached villa; it reappears every year). On 12th November when the leaves were off there were only

fourteen nests left ; and these were gradually demolished until at the end of February only two remained. By the 22nd March the twenty-one or twenty-two nests of the preceding year had been completed.

The number of nests in 1932-33 was the same ; this though there is ample room for more ; but the problem is, Why are some thus pulled down each winter and a few left ? What dictates the selection ? Doubtless the rooks have their reasons, but it would be interesting to know what they are.

That which overhangs our garden is an outlying branch of the great rookery in the field beyond—a suburb, it may be called ; establishment of a new suburb is allowed under what appear to be recognised rules ; if not fewer than five pairs of rooks discover an eligible building lot and wish to develop it they are suffered to do so. Two such outlying suburbs have recently come into being ; one about 100 yards to the south-east was begun with the regulation five nests last year, and this spring there were eight. Another, 150 yards to the west, was founded this spring with five nests ; and as in both cases there is plenty of room for more, each will no doubt expand as increase of population requires. This rule does not apply everywhere ; in some parts of the country three pairs may be licenced to found a new settlement ; doubtless there is a Council or Committee which decides these matters.

People ask whether we do not lose garden stuff by rook theft. The only things we do lose are the broad beans ; these offer a temptation no rook can resist ; let that vegetable betray its presence by one inch of leaf and a rook marks it for his own—or his wife's ; for if an inference may be drawn from the fact that the thief

usually flies direct from the scene of pillage to the nest, he steals beans on her account, seeking to solace for the tedium of sitting.

He is a tolerant fowl; the books say certain small birds, the great tit and tree-creeper, are wont to build in the disused nest of rook, crow or magpie. The great tit, at least, does not always wait for a rook's nest to be deserted. We have this spring a pair of them which have taken for the season the basement storey, so to speak, of an occupied nest, and this with the obvious concurrence of the proprietors, who, I take it, have given an undertaking to respect the eggs of the tit. Possibly tits' eggs are too small to be worthy the attention of rooks, for these are birds of catholic tastes who will eat most things.

Catholic is the word; what other meets the case when they eat the grease out of railway truck axle-boxes in winter and young sparrows in spring? Whether rooks kill young chickens or not is a question once hotly debated; their consumption of fledgling sparrows lays them open to suspicion, for if those, why not chickens of tender age? It is probably a taste of individuals, for the misdeed is not common.

P.S.—Those sparrows, undaunted, have begun a new nest: their seventh.

CHAPTER TWO

Wagtail and house martin. Mischievous wood-pigeons. Troublesome hares. Mr. Kinahan's doe, Jin. A wise hare. Superstitions about the hare. Jealousy of fishing heron. Fidelity to heronry. Danger from beak. Tendency to fly west. Swifts at evening. Jays and squirrels. Jackdaw attacking baby. Bees. Rev. Charles Butler on bees. Leaf-cutting bee.

CHAPTER TWO

A **STANDING** matter for regret is that the house martins will have nothing to say to this abode as a nesting-place, though the uppermost course seems to have been designed expressly for their convenience. Their avoidance may be due to the presence of the pied wagtails who make their home each year in the pollarded yew that stands within a few feet of the wall; for between wagtail and house martin there is feud, from what cause arising only wagtail or martin could tell. That there is bad feeling is clear; twice I have kept watch over a pond whence the martins bring mud for building, and on each occasion there was a pied wagtail on the margin who had appointed himself guardian; and whenever a martin alighted, or tried to alight, that wagtail flew at it on expulsion intent. He had no objection to any other bird; sparrows might come and go unnoticed, but the approach of the martin at once roused him to wrath. He had his work cut out because his foes were many, and while he was hunting one half a dozen came, gleaned their supply of mud and went their ways. This antipathy may be seen on the roof, though less markedly, since martins don't affect roofs; let one swoop past the chimney-stack upon which the wagtail is taking the air, and at once the latter flies to the attack. I rather think martins take a mischievous delight in baiting him.

Gladly would we exchange our wood-pigeons for mar-

tins ! They are a nuisance ; unless the young lettuces and other tender green things are jealously protected with close wire guards those pigeons have every one of them ; and the birds have grown so wary that they are hard to shoot ; also they have a reprehensible habit of breakfasting as soon as the dawn breaks when nobody is about. Friends in neighbouring villages complain of the visits of hares, which are many on the Berkshire Downs ; this garden being walled all round, we do not suffer ; I should have a warm welcome for a lady hare were she to make her home here ; a leveret caught young makes a desirable pet, though one apt to take possession of the house. The late Mr. G. H. Kinahan, an Irish field naturalist, had, among other tame hares, a doe he called Jin ; she was caught when very young by one of his cats who brought her indoors unharmed. That hare grew up to be a regular tyrant, lording it over her foster-mother and other cats, also the four dogs ; it was curious the submission with which cats and dogs alike accepted Jin's rule and gave in to Jin's whims ; if she wanted the hearthrug for herself neither dog nor cat dare trespass thereon. She was perfectly fearless ; perhaps it was not singular that she should show fight when taken up to be put in the box she occupied at night, hares being most alert and active during the hours of darkness, therefore disinclined to go to bed. She would bite any stranger who tried to caress her, though docile enough (except at bedtime) with her owner. Jin came by her end in a curious fashion ; after the manner of her kind she was prone to wander in the spring, and in the second year of her domestication escaped from the garden and took to the hills, followed as it chanced by the cocker spaniel she used to bully in the house. She turned upon him, either



JIN ALWAYS WANTED THE HEARTHRU^g FOR HERSELF

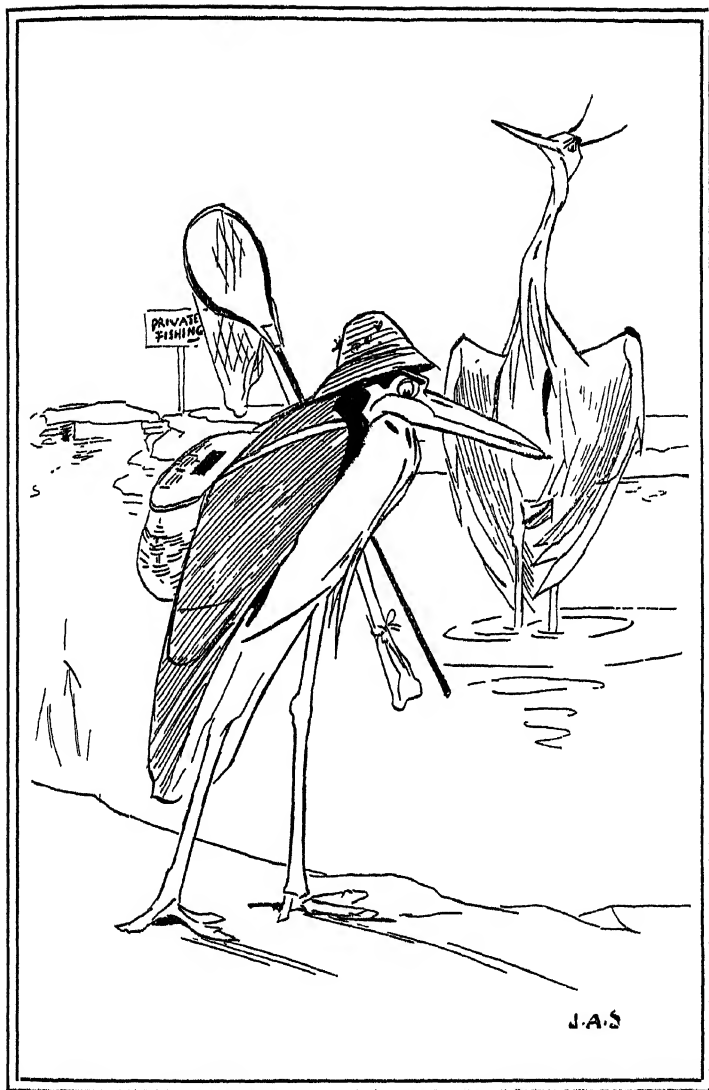
on play or fighting intent and, his natural instincts gaining the upper hand out there on the hillside, he killed her.

The hare is not usually regarded as wise, but there is more sense in that small head than those people think who use "hare-brained" as an expression of disparagement; she may have been an exceptionally sensible specimen of which this tale is told, but you will agree that she had her wits about her. It was in course of a hare-drive on Salisbury Plain many years ago that Mr. Denholm Armour (whose sporting pictures in *Punch* everybody knows) had a lesson in leporine intelligence. A doe, advancing towards the line of guns, recognised the danger awaiting her and came on with patient discretion; she took shelter behind a big mole-hill, paused there for a few seconds and then made a dash for another; stopped under cover of that for a time, evidently looking about for like shelter, saw what she wanted and forthwith bolted, best pace, for that. And so continued from one mole-hill to another until, close to the line of guns, she made her final rush through. Mr. Armour might have shot her, but could not bring himself to do it after such a display of mother-wit.

The wiles of the hunted hare are proof of her sagacity, and it may be that these, so familiar to our sporting ancestors, account for their deep-rooted conviction that the beast was in league with witches. The hare has two habits which the medieval mind did not understand and explained by the supernatural: thus, when the hunted hare suddenly disappeared while on apparently open ground the thing was inexplicable, save by the assumption that the animal possessed the power of vanishing from human sight; though where it went under these

circumstances nobody attempted to explain. In the fifteenth century, and much later, the hare-hunting fraternity were unacquainted with the trick practised by some individuals of seeking refuge underground, rabbit-like—"going to vault" as it is termed; so naturally it never occurred to Master or member of his field to invite hounds to apply their noses to any hole or burrow near the spot where that hare had vanished. Then she has another peculiar taste which led to misunderstanding; any open door has irresistible attraction for the hare in distress; let outhouse or similar building come in her way, and she will seek refuge within, taking cover among faggots, straw or anything that offers concealment. This weakness was one our ancestors did not realise, and when a hare was lost near some solitary cottage, and the only inhabitant thereof was some old woman, startled and alarmed by the hounds about her door, the sportsmen drew the natural (to the medieval mind) inference that that which they had been hunting was no true hare but an ancient female who had recovered her true shape at their approach. The crone's alarm, embarrassment, indignation—her whole aspect—were convincing; for surely no old woman would be so upset were she not a witch who had been as nearly as possible caught in the act of changing her shape! Under such circumstances there was only one course open to the followers of hounds; they would cross themselves, utter, perhaps, a brief prayer for protection from Evil Things, and ride away to quest for another hare which *was* a hare. One can't resist the conviction that this sort of thing lent a spice of excitement to the chase which is lacking in our day.

A heron passed over the garden this morning; whence



THE TRESPASSER WARNED OFF

he came and whither he was bound cannot be said ; there is no heronry within many miles of Appleford, so this fellow must have come our way on a private fishing excursion in the Thames. Castletownshend was the place at which to study the heron—and many other birds ; there is a heronry in the wood almost overhanging the waters of the upper harbour, and the birds used to fish on the shore close to the house—one heron at a time, of course ; in heron circles prevails a rule that any given area of water temporarily appropriated by a bird is his, and his exclusively, for such time as it please him to stay ; and within that area no other heron may presume to intrude. One morning a bird ignored this well-recognised rule, alighting within ten or fifteen yards of the leaseholder who stood hock-deep in the shallows awaiting the arrival of fish. There was no excuse for this breach of etiquette, for the leaseholder was in full view ; and he was prompt to let the audacious trespasser know it. His head rose sharply from between his shoulders, he threw one quick glance at the wrongdoer, spread his flags, shot out of the water and with neck outstretched, spearlike, flew at the fellow, who did not wait to argue ; conscious of wrongdoing he was up and away in an instant. There was no pursuit ; the first heron, having seen the other off the premises, turned and sailed gracefully back to his old place to settle down with the dignified air of one who has vindicated rights and read a lesson.

When the wind rose and the ruffled sea put fishing out of the question a heron would leave the water and squat—the only word—under the shelter of a thick hedge ; and seem to listen with disgust to the uproarious glee of the missel thrush who, as is his wont, sang loudest in a gale.

Very faithful are herons to their chosen place ; some years ago the woods were felled on the hillside, only a fringe of trees near the shore spared, and among those which escaped the axe was one on which the birds nested ; two nests only remained. It might be expected that the herons would have accepted this as notice to leave ; but they did not, for in the following spring nine new nests were counted on the adjacent trees. The bird is reputed shy ; his shyness, manifestly, is less developed than fidelity to his old home.

The heron, more than most birds, has benefited by the Protection Acts, mistakenly as these are framed ; in my boyhood the sight of the bird was an Event ; indeed, the fact that I ever saw it is stamped on memory by finding a young one on the ground ; a bird I would have tried to catch had not a grown-up restrained youthful ardour ; the heron has the ugly habit of striking at the eyes with that sharp beak of his, and therefore is to be treated with caution. It is a simple matter to lay hold of an injured bird ; reach out with your stick and stroke his neck ; this absorbs his attention ; while stroking draw near and bring the other hand up smartly under his beak ; that securely held he can do you no harm. I have taken a disabled gannet in the same way, and his beak is a weapon more to be respected than that of the heron.

A fact concerning herons offers food for speculation—to wit the tendency of young birds to fly westward when they leave the nest. This fact has been brought to light by the industry of members of the *Ashmolean Natural History Society* who make a practice of “ringing” young—and sometimes old—birds of various species in order to trace their movements. Here is the record of 1931 : eleven young herons ringed at various places in Berk-

shire, Bucks and Oxfordshire in course of the years 1927, 1928 and 1929 were retaken within twelve months—in a few cases within two or three months ; and of the eleven, eight were recaptured in counties to the north-west ; two of them in Ireland, Counties Meath and Mayo, respectively. One bird went south, Bucks to Hampshire, one south-west Oxfordshire to Dorset ; and one north-east Bucks to Lincolnshire. To the west-bound company may be added another heron ringed in Essex and recovered in Oxfordshire the same year. Thus, out of a dozen herons, nine flew west or north-west. Why ? The bird is not a migrant ; and if it were, preference for the west is not explained. This is one of the minor mysteries of bird life ornithologists have yet to solve. It *may* be that they follow the light—pursue the declining sun, as the swifts are believed by some to do when they soar their highest at sundown. That is another minor mystery ; swifts don't seek the upper ether in search of the insects on which they live ; if they wanted food they would remain in the lower atmosphere and render appreciated service by catching the too plentiful midges. Do they go aloft in order to keep the sun in sight ?

Among those of the peasantry who take any account at all of bird life are they who maintain that swifts pass the night on the wing ; an idea derived from the bird's extraordinary powers of sustained flight and the fact that its legs are not worth mention. One thing is certain ; while you may always see them go up, you may watch long ere you see them come down, whence it may be inferred that they are not early bedgoers. The swift, by the way, is the only bird whose voice does not change from its first days to the last ; the nestling screeches in a fashion as unmusical as its mother.

This being a great partridge country such birds as hawk, magpie, jackdaw and jay are few ; the gamekeepers see to that ; and though the last named is an incorrigible thief of other birds' eggs, there is about him that which makes his absence a fact to be regretted. Why is it that jays and squirrels cannot live in harmony ? Some time ago a friend who then lived in the County Carlow told me that when she went thither sixteen years before, squirrels were numerous in the plantations—fir for the most part ; then jays made their appearance and the squirrels disappeared, never to return. The same thing happened on another estate about two miles away ; there also the squirrels left for good, disinclined to share their haunts with the jays : more ; every spring the jays warred with the magpies and hawks ; and the jays won ; which seems strange. The exodus of the squirrels can only be explained, I think, by attacks made on young ones when the parents were away foraging ; the infant squirrel, blind and helpless, would be an easy victim. A jay would think twice before falling foul of an adult, who is strong and active, and bites hard.

We have a pair of jackdaws who share the trees with the rooks and are on amicable terms with them, as they do not keep themselves to themselves, but join the bigger birds when they fly abroad. Any bird that is a foe to mice may count on a welcome here, and though these particular jackdaws have never been detected in the act, their kind is known to kill and eat mice. It shows indulgence on the part of the rooks to suffer them in their trees, for of all egg-stealers the jackdaw is about the worst. Rooks, however, can take care of their property and doubtless have made the jackdaws understand that misdeed of that sort will not be tolerated. Having kept

tame jackdaws and had no reason to complain of their conduct save as to the petty larceny one expects, a story which appeared in the *Morning Post* of 12th March 1898 shed a new and lurid light on the character of the bird. Some people named Willis living at Small Heath near Birmingham had a tame one ; there had been no reason apparently to suppose it otherwise than harmless, or the incident would not have occurred. Mrs. Willis gave birth to a baby ; and one afternoon when the child was about a month old its screams caused the mother to rush upstairs : she found the jackdaw on the bed pecking the baby's face, so viciously that it was covered with blood ; there was reason to fear that the child might lose the sight of one eye. Such an attack might not be surprising were a raven the culprit, but it must be very exceptional in the jackdaw.

The gardener has come to say that a swarm of bees have settled in a hole in that old apple tree near the asparagus bed ; and what is he to do about it ? He had better leave them alone ; an admonition he is quite ready to obey. When the time comes we will tack a piece of sacking soaked in paraffin over the hole, which will ensure the bees' avoidance of it. This is an effectual method of giving them notice to leave ; to bees paraffin is anathema even as it is to ants.

If we want honey Mr. Stone down the road keeps several hives of bees and knows all about them. Mr. Stone, it was, who told me that they will not have anything to do with sweet peas, the good reason, I apprehend, being that to get what they want it would be necessary to bite through the base of the blossom ; and bees, sensible folk, don't do more work than they must. Stone

eyes the great tit askance ; that sprightly bird has been seen to alight on the hive stool and tap, when bees come out to see who is there and are killed, and eaten after the business ends have been pecked off. There is a case of bees getting a bit of their own back ; a pair of tits built in a hole in a tree not far from the hives ; bees were seen entering it, and moved by curiosity the bee-master investigated ; he opened up the hole and found a brood of fledglings dead with the unmistakable marks of stings all over their naked bodies. It looked as though the bees slaughtered those young tits by way of reprisal. A bee-master is a useful person ; wasps are the worst foes of the hive, so he is at pains to destroy every nest he can find. Stone knows nothing of bee-lore, save what he learned from his parents in an elder day ; and it may be suspected that he adhered to ancient usage and " told the bees " when his father died, if he did not go a step farther and put a bow of crape on each hive. It was well known to our forbears that unless these attentions were paid the bees would go on strike and produce no honey.

With all their merits they are inconsiderate, taking up their quarters where bees are least desired, as in the case of the pillar-box at Haunton, a village near Tamworth. It was in July 1895 that a swarm established themselves in that retreat, taking possession on a Sunday when there was no collection and they could therefore work undisturbed. When the postman came to clear the box next day they would not have it ; they fairly drove him off ; and, sensible that they were intruders, it would seem, refused to permit the posting of letters. They had got the pillar-box and meant to keep it ; and did so for at least four days.

Here is a pleasant tale of bees from the Rev. Charles

Butler's *Feminine Monarchie*, published in 1609: this author tells how a certain Simple Woman's hives were afflicted with the "murrain"; at a loss to know how to deal with the pestilence she consulted another Simple Woman, and on the latter's advice went to Communion and saved the consecrated Host to put in one of the affected hives. She did so with the most satisfactory results; the murrain ceased and honey abounded. And that was not all; very far from all: when that Simple Woman lifted the hive

"she saw there (most strange to be seen) a chapel built by the bees with an altar in it, the walls adorned with marvellous skill of architecture, with windows conveniently set in their places; also a door and a steeple with bells. And the Host being laid upon the altar, the bees making a sweet noise flew round about it."

That last detail of the Simple Woman's story gave Mr. Butler pause; he did not quite see how the bees *flew* round that altar in a space so confined; but "haply the woman said they did but crawl", and he mistook the word. As for the certainty, frankly admitted, that wax bells "would give but a weak sound", he asks sceptics to remember that the parishioners dwelt not far off; "and so, I think, these captious criticks will hold themselves satisfied".

Oh idle bee that left the fane
While brethren toiled upon it,
Could you no other refuge gain
But Mr. Butler's bonnet?

There are bees and bees. The bee that rouses my ire is that one whose name is derived from its mischievous habit of cutting patches out of the leaves of our best rose

bushes ; the insect disfigures the leaves and then denies one the chance of seeing what she does with the patch, or rather, how she does it ; how that tidy parcel of grub and food is put together. A very old apple tree which had ceased to bear, being cut down and sawn up for firewood (there is no log to blaze like that from an apple trunk), there was found closely packed in a hole running up the interior a dozen or more of those parcels, each containing an ugly grub with unrecognisable matters furnished by the bee for the nourishment thereof. Of course, these grub-packets were much smaller when bestowed in that hole, which was about three-quarters of an inch in diameter, and before the grubs within had swelled till their casings were crushed together like flat-ended bullets in a gun-barrel. The leaf coverings were fresh and green, though brought to light in mid-December. What I want to see is the bee making up those packets ; disfigurement of the rose bushes should be forgiven did she permit this ; but the work is done within the tree-trunk and hid from human eyes.

What would happen to the grub in the middle if it attained to beehood before any of its neighbours, and could not get out ?





CHAPTER THREE

Hedgehogs. Winter quarters. Food. Reputed to suck cows. Moles. Insatiable appetite of. Weight of. Absence from Ireland. Cat's failure of memory. Exchange of ideas between cats—between hound and terriers—between Indian crows—between rooks. Sagacious rats. Magpie's sense of humour. Reasoning power. Use of by cockers. Pliny on the magpie.

Good memory of tame magpie.



CHAPTER THREE

IF animals would only be guided by the Natural History books they would be spared some trouble and annoyance : that hedgehog, for instance ; why did he go and bury himself for the winter in the heap of dead leaves we are keeping to make leaf-mould ? He ought to have chosen some secure hole in a bank, or under the decaying root of a tree, or deserted rabbit-hole ; but having elected to lie up in that leaf heap he was turned out of bed in March, long before he would have got up if left to himself ; as it was, after unfolding himself on the path, he glared with pardonable indignation at his disturber for a moment, then trotted stiffly away to seek another bed. There is a rhyme about him in *Poor Robin's Almanac* :

Observe the way the hedgehog builds her nest,
To point the north or south or east or west ;
For if 'tis true what common people say,
The wind will blow the contrary way.

It is to be feared that the "common people" did not know much about hedgehog methods ; when the beast works his way into a leaf heap he makes no nest at all, and wherever he bestows himself for the winter pays no attention to the direction of the wind at the time ; having regard to the variety of direction whence it comes from day to day, the hedgehog who considered it at all would be foolish. His retreat is

one where the wind from whatever airt cannot reach him.

Again, the Natural History book says he ought to spend the winter "in a state of complete torpor"; but he does not; his footmarks have been seen on snow, proof that he ventures abroad when he should be curled up in bed. Of course, such adventures can be only occasional, and are no doubt due to hunger at a season when food is hard to come at. Lady Palmer, writing to *The Times* of 19th January 1933, told how two or three hedgehogs appeared after a fall of snow and refreshed themselves from a saucer of bread and milk. She tracked one to its bed and therein found two or three young ones. This is an interesting point, establishing the fact that a family may be produced in the winter. Thus is the "state of complete torpor" theory demolished.

Hedgehogs would be welcome—in this garden at any rate—did they devote more attention to the snails which are a feature of their diet; on two consecutive nights, armed with a candle and a vessel of lime and water, I rid the lawn of 285 snails collected in about twenty-five minutes; and this in early May when hedgehogs ought to be up and about. Not everyone, however, wishes to see an increase in the hedgehog population; the animal's guilt as an eater of eggs, whether of domestic poultry or of game-birds and a destroyer of chicks is only too well established. Where fox and badger are not, his only foe appears to be the rat; and it is doubtful whether the rats kill a sufficiency of hedgehogs to make their presence acceptable anywhere, the rat being far more mischievous than the hedgehog.

Time was when Man accused him of sucking milk from

the recumbent cow, and for this offence he was placed on the proscribed list of vermin, threepence or fourpence a head being paid out of parish funds for his destruction when those sums meant much more than they do now. The hedgehog will drink milk and likes it, but whether he goes direct to the cow is more than doubtful. Some years ago a man described in *Folk Lore* this misdeed as a "superstition"; which drew from another correspondent quite an angry letter flouting the statement that it was only a superstition and saying he with his own eyes had seen a cow rise from the ground with a hedgehog hanging to a teat. It is difficult to understand how the thing can be done; the formation of the mouth seems to put the proceeding out of the question.

Last year we suffered from moles; they came from a field across the lane and made themselves at home in the vegetable garden, throwing up hills all over the place and, with the hills, seeds and young plants. We caught a few with traps and the energetic cat killed more; this year not one has paid us a visit; which points to realisation of danger in mole circles. They are easy enough to catch if gloves are worn while handling the trap, particularly gardening gloves like mine coated as they always are with soil; for the mole's sense of smell is acute and detects the scent of the human hand without fail. They must be the most voracious creatures alive; Miss Frances Pitt, who knows more about our small mammals than anyone, found that in captivity a mole required daily at least three ounces of the worms that form its staple diet; equipped with this information I weighed three; one, only five inches long, and probably not full grown, weighed between two and a quarter and two and a half ounces; each of the other two, certainly adults, scaled as nearly as pos-

sible three and a half ounces ; whence it appears that the beast needs almost his own weight of worms each day ; probably more since three ounces is the minimum. Miss Pitt mentions an incident which shows how dependent is the mole on a constant supply of food : a labourer caught one late in the afternoon and put it in a box meaning to bring it to her next day. Ignorant of its enormous appetite the man gave it nothing to eat, and when he looked in the morning about six o'clock it was stiff and cold ; had evidently been dead for some hours. If the mole ever sleeps, he must wake up ravenous after an hour's slumber.

Strong and muscular though they be, moles are easily killed ; our sportscat did much to let them understand that this garden is no safe resort ; I bolted one from a flower-bed one morning while he was looking on, evidently aware that sport might be expected. The mole appeared and made a dash for the laurel hedge, but the cat was upon him ere he had gone half-way, and a single bite ended that mole's career. His bag amounted to seven last summer.

There are no moles in Ireland, and as the country gets on very well without them the friend who contemplated importing a few to promote surface drainage has done well to refrain from the experiment, for never has country imported alien species, whether beast or bird, without regretting it ; of which matter something may be said hereafter. There are obstacles in the way of exporting moles to Ireland or anywhere else ; their inexhaustible appetites, which would involve constant feeding on the journey, and the combative nature of the males ; let two males meet and there is sure to be a fight. Moreover, were a batch safely transported the recipient would soon

be sorry he got them ; the speed with which they breed and the expedition wherewith they choke ditches would soon outweigh any good they might do as drainage experts.

Reference to the sportscat invites mention of a curious case of failure of memory on his sister's part a short time ago. She had a litter of four about a week old, by no means her first, and, as usual, moved them from one place to another—a night in a corner cupboard, two nights in the store-room cupboard, then two in the attic, then in the basket supplied her for the purpose—a trait, no doubt, inherited from wild ancestors who do the same thing ; the wild cat goes farther, sleeping here one night and somewhere else the next. The cat, Juliet, came to us one morning at breakfast, looked up and wept plaintively ; she did not want food (which was unusual), and wandered ceaselessly between the table and the door. Thinking that something must be amiss with her kittens we went to look. They were not in the basket where we had seen them the previous evening, and as she surveyed the empty nursery with agitation more acute it occurred to me that she, having moved the kittens, had forgotten where she put them. Search was instituted, Juliet following first one person, then another, with the same ceaseless piteous mewling. Eventually her lost children were found behind an old shelf leaning against the wall of a deep cupboard in an unused bedroom ; and at sight of them Juliet at once dried her tears and took them to her bosom. The strange thing was that on at least one former occasion she had selected that cupboard as a lying-in hospital, so was well acquainted with it. A dog may be forgiven if he forget where he hid a bone, but really cats ought not to forget where they leave their kittens. Juliet should

have told her brother where she left them ; he has a memory and could have helped. Do not scoff ; animals, even cats, can exchange ideas as the following little story proves.

In a neighbouring village dwells Mrs. Evelegh who owns a cat—Siamese, though his nationality has no particular bearing on the matter. Mrs. Evelegh's nearest neighbour is Lady Hallett who has also a cat—son of Juliet, though his parentage has nothing to do with the subject unless to show that his wits are brighter than his mother's. Upon a day Mrs. Evelegh missed her watch ; it had been left on the dressing-table and was found after search, undamaged, under the bed ; she was greatly puzzled to guess how it got there, but there was no way of finding out. A few days after another watch was taken from the place where the owner had left it ; that one was found at the foot of the attic stairs, uninjured, still going, and—a plaything in the paws of the cat. Again a few days passed ; then Mrs. Evelegh's maid met the cat on the stairs carrying her wrist-watch. She rescued it ; and since the passion of that cat for watches has been discovered they have been kept in drawers when not worn. Now, a watch-stealing cat is an eccentric character, but it is the sequel to the doings of that Siamese that strengthens belief in the existence of a feline language. Not long after the rescue of the third watch in Mrs. Evelegh's house, Lady Hallett's cat was encountered coming downstairs carrying a wrist-watch, the straps sticking out on each side of his head like whiskers ; he had never stolen one before. These two cats are friends ; one or other is continually passing through the hedge between the gardens to visit his neighbour. Can it be doubted that some such speech as this was made by the Siamese ? “ Have

you ever played with a thing that goes 'tick-tick-tick'? The humans wear them. They're great fun. All the tick-ticks in our house are kept shut up now. See if you can find one in your house." It must be added that in each of the four cases the watch was going; and doubtless the ticking attracted the cat's attention. But however that may be, it is hard to account for the act of Lady Hallett's cat save on the assumption that the Siamese expounded to him the worth of watches as playthings.

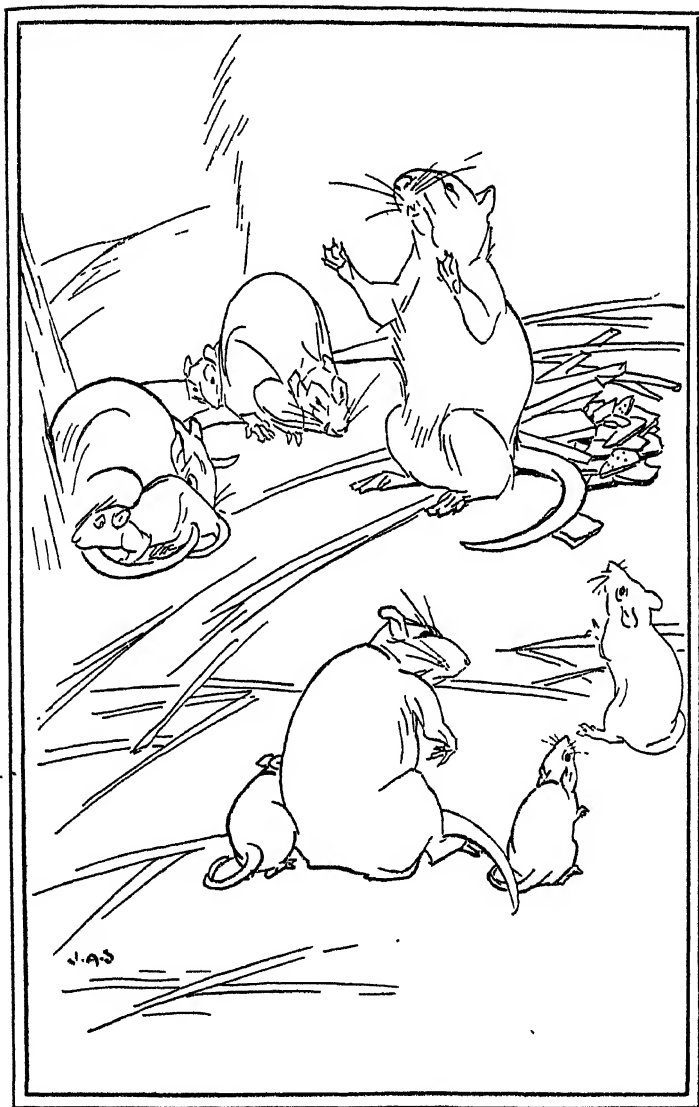
Mr. H. W. Horlock, a famous Master of Foxhounds who wrote under the pen-name "Scrutator", tells a story that proves canine ability to communicate ideas. He had out with the pack one day an old hound called Pilgrim; a fox was marked to ground in a coppice not far from kennels and was stopped in with stones, hounds going on to another covert whence they had a run. In the early afternoon, when hounds had been fed and turned out in their paddock as usual, Mr. Horlock went to look at them; and missed Pilgrim. He did not think much about it and, having nothing else to do, strolled over to the coppice where the fox had been stopped in that morning; lying at the hole, from which he had scraped away the stones, lay Pilgrim who looked up, wagging his stern with evident pleasure; then, listening, Mr. Horlock heard within the hole the voices of terriers at the fox. Help was summoned and the fox dug out, to Pilgrim's obvious gratification. Now, the two terriers had not been with the pack that morning; it was clear that they had been invited by the old hound to accompany him and, if they could, bolt that fox. Pilgrim must have told the terriers that he could show them a fox if they would come with him; anyhow they went.

Birds, some at all events, exchange ideas, as well as

animals. In the long ago when in Rangoon a number of us were taking our ease after the Sunday morning ride in the broad verandah of the chummery, drinking drinks to replace lost tissue. Before our long chairs crouched one of the numerous dogs enjoying a bone he had acquired in the cook-house ; and while he gnawed there came with the silent, furtive flight of their kind when on mischief bent two crows who perched on the verandah rail. They sat for perhaps half a minute ; then one crow dropped quietly upon the verandah floor and pecked hard the dog's tail ; the outraged dog turned upon him, and as he turned the other crow dropped and carried off that bone ; a clearer case of collusion could hardly be. It must be added that exactly the same sort of proceeding has been seen by others.

The members of the Crow Family are endowed with brains above the average : among notes cut from old copies of the *Field* is one dated 28th April 1877, in which Mr. H. Kerr of Stackstead in Lancashire describes a performance by rooks quite equal to that of the Indian crow. The cupidity of a couple was aroused by sight of a piece of bread on which a hen was feeding ; one rook perched on a fence hard by while the other circled about the hen close enough to tempt her to make dashes at him. Finding she was not to be lured away by this manoeuvre, the bird gave it up and perched beside his mate arranging a new plan of action. Their idea now was to make a combined attack ; the two

“dropped down into the meadow a few yards from the hen, one on either flank. This new movement distracted the hen's attention, and she had to turn her head alternately to each side to observe the ap-



"DON'T TOUCH! IT'S POISON!"

proaches of the enemy. The rooks advanced gradually, feeling their way, as it were. One of them drew rather nearer than the other, evidently by preconcerted agreement. Poor Partlett thought it was time to make a demonstration and made a fierce dash at that nearest rook."

When the other went in, picked up the bread and flew into the next field; the other joined it, and the two settled down to breakfast.

If the rats in this next story did not employ speech they must be masters of a sign-language equally useful. Mr. Shepherd told me how, the vermin having made their home in a wheat stack, he thrust a dozen pieces of poisoned bread-and-butter well into the holes. The first lot killed one old rat and four or five young ones; so, thus encouraged, he put down more, this time without result so far as could be seen. Thinking that the poisoned food had been eaten and the rats had crept into the stack to die, he thrust in yet more. Ten days after the last lot of bread-and-butter had been inserted in the holes the stack was threshed; and when the men came to the faggots on which it was built they found the bread-and-butter neatly heaped together, and untouched. The rats had learned their lesson and had no use for more food like that.

Their action in collecting the poisoned stuff and putting it aside in a heap is sufficient to enhance our opinion of murine wisdom; but it is difficult to believe that the rats' precautions stopped there. Temptation to the rising generation remained; and I venture to think that elderly rats took turns to stand sentry over that heap and warn off the youth of the colony who might not be amen-

able to advice given by their seniors. Undoubtedly animals talk. I wonder what they say about us.

There are birds, individual birds, who possess a sense of humour. I had a magpie in which it was well developed, and exercised at the expense of the cat who annoyed him by unwelcome attentions ; he would tempt her to follow him up a particular tree, stopping when she stopped, hopping to a higher twig when she took a step upward ; thus he would lure her to such height as seemed good to him ; as far as the slenderness of the twigs allowed her to climb ; and then, after watching her with that quizzical air only a magpie can assume, he would fly down to the lawn and go about his unlawful occasions—in the scullery if the door chanced to be open. It was clear that he led the cat up the tree with definite purpose, as he never climbed it for his own pleasure ; he never took wing when stalked, and showed neither haste nor alarm while mounting the tree, knowing well that the cat could not catch him.

Another magpie displayed what may fairly be called reasoning power :—given a scrap of meat too big to swallow and too small to be conveniently held down and torn, he would hunt round for a suitable small stone and grip this with the meat to obtain a firm hold.

I suspect it is the aptitude with which the magpie masters human speech that led our ancestors to suspect him of intimacy with the Evil One, and hold him the “ Devil’s bird ”. Whatever their reason they did so regard him and turned his sinister reputation to account in a peculiar way : the cock-fighting fraternity—which means nine-tenths of the population—were in the habit of putting the eggs of their game-fowl into a magpie’s nest to the end that the Devil’s bird should hatch them

out and produce chicks fiercer than those hatched by their natural parent. Another plan, highly approved by the knowing, was to go to Communion, save the morsel of consecrated bread and give that to your cock before pitting him ; then he was sure to win. How is that for a contrast ?

The intelligence of magpies, though still great, has deteriorated since the days of Pliny. Writing of their linguistic powers he says :—

“ Not only do they learn, but they delight to talk, and meditating carefully and thoughtfully within themselves hide not their earnestness. They are known to have died when overcome by difficulty in a word, and should they not hear the same things constantly, to have failed in their memory, and while recalling them to be cheered up in wondrous wise if meanwhile they have heard that word.”

How reminiscent of our own schooldays ! That careful, thoughtful meditation within ourselves when we didn't know the answer to a question ! The wondrous way we cheered up when some good fellow whispered the word ! But he was a delicate fowl, was Pliny's magpie :—

I can't recall to my poor brain
The genitive of *scava*
The pain's acute, the mental strain
Can but excite brain-fever.

If, when I die, you hear them cry
“ What could it be that ailed him ? ”
Between your sobs you shall reply
“ The poor bird's memory failed him.”

There can be no question as to the excellence of magpie

memory for some things : to enable a wing-clipped bird to reach the big cage in which he, for safety's sake, was required to spend the night, I made a light hen ladder by which he should ascend to the door, about thirty inches above ground. He grasped its use at once and started to hop up it ; by sheer carelessness I had not planted the thing properly ; it turned over, and the magpie was thrown down. From that day forward no persuasion, no tempting with favourite morsels would induce the bird to try the ladder again ; he was firmly persuaded that it was a cunning trap and evil must await the magpie who should trust himself thereto. I was the principal loser, for it thus became necessary to go out every evening when it was time to put him to bed and catch him on the window-sill he had chosen as a roost in default of means to reach his cage. He had to be salved from that window-sill as it was within easy reach of the many cats around.



CHAPTER FOUR

Pliny on migration of stork and crane. Old Scandinavian ideas on migration. Subaqueous hibernation theory. Migration to India suggested. Gilbert White on migration. John Hunter's dissection of swallows. Sand martins' holes explored. The migrating woodcock. Great reed warbler astray. Sense of direction of oystercatcher. Migration puzzles. Carriage of small migrants by large. Gold crests' arrival. Elevation of migrants' flight. Effect of wind on gulls.

CHAPTER FOUR

A YOUNG person—a very attractive young person —wants to know whether the swallows marry after they come to this country (“home”, as she properly puts it) or before they set out on their journey. The question, hard to answer, inspires a train of thought : some swallows, also house martins, certainly do postpone matrimony until their arrival, for we see them courting ; which invites speculation touching domestic arrangements. The birds resort, year after year, to their old nests : now, does the nest in which a newly wedded pair take up their abode belong to the cock or to the hen ? Did he or she call that nest “home” last year ? I give it up.

The migration of birds intrigued mankind from an early day. Pliny noticed the comings and goings of storks and cranes, but did not venture farther than recognising that they did come and go. Of the storks he says :—

“ From what parts they may come, or whither they betake themselves is not yet ascertained. It is indubitable that they come far in the same manner as the Grues (cranes), but the former arrive in winter and the latter in summer. When ready to depart these birds collect at some fixed place, and after gathering, so that none of their tribe, unless a prisoner or a slave, is left

behind, they disappear on an appointed day as if by law. No one has ever seen the whole array in very act to go, though it may haply shew itself when ready to depart ; nor do we view it coming, but when it has come."

By "prisoner", Pliny doubtless meant a captive bird, wing-clipped or caged ; and, we hope, protected from the rigours of winter. What he meant by a crane in a state of slavery, the reader is left guessing.

The disappearance of the swallows at the approach of winter engaged the attention of sixteenth-century observers. Olaus Magnus, Archbishop of Upsala in Sweden (*dec.* 1558) who took interest in these matters, accepted the view that swallows, clinging together in bunches, passed the winter submerged in lakes ; so did Erik Pontopiddan in his *Natural History of Norway*, 200 years later. They could make out a case from superficial observation ; the birds are in the habit of seeking beds of tall reeds in which to roost ; they may be seen settling there in the evening, and in the morning all are gone : so what more probable—what more obvious to the unenquiring mind of that age—than that the swallows had retired under water and meant to stay there till the spring came back ? Not all seventeenth-century naturalists, however, were satisfied with this explanation of the vanishing swallow ; our own ornithologists, Willughby and Ray, writing in 1678, dismissed the theory of subaqueous hibernation ; they would not have it ; they dealt with the mystery in a becoming spirit of caution ; they "could not certainly determine" whether the birds lay torpid in hollow trees and kindred places, or flew away into other countries. The latter seemed to them the

more likely, and they hazarded the opinion that swallows went for the winter to Egypt and Ethiopia, the climate of those regions being hot. It was George Edwards, a naturalist of whose work we hear less nowadays than it deserves, who, boldly scouting the subaqueous and hollow-tree theories, stressed the rational explanation. Writing in 1743, he drew attention to the fact that swallows were as well known in Bengal as in Britain, and urged the appointment of some responsible person who should be commissioned to ascertain whether the presence of the birds in India did, or did not, coincide with the period of their absence from this country. Edwards, you see, was on the right track, though in the wrong direction: he contemplated movement from west to east, instead of from north to south.

Well as they were entitled to consideration the views of Edwards did not carry weight, for Gilbert White, Thomas Pennant and Daines Barrington, who corresponded with one another for fifteen years, from 1768, were still in doubt, and made no reference to the opinion of Edwards; all three opined that some swallows at least spent the winter with us, dormant in caves and like retreats after the manner of bats; "but" added White, like the cautious man he was, "this is rather suspected than proved". Barrington declared himself "no great friend to migration", preferring the theory of hibernation. There were still those who adhered to the belief that swallows passed the winter under water, for the famous surgeon John Hunter was moved to make a series of dissections of swallows to discover if their lungs differed in any way from those of birds who, it was known, did not winter under water; whether swallows' lungs were so contrived that subaqueous life was possible:

and, finding they were as the lungs of other birds, "esteemed it a very wild opinion" that they could live below water.

As with the swallow so with the sand martin which disappears in the (to eighteenth-century naturalists) same perplexing fashion in winter; in their case solution of one question was easy. It was thought that these birds might lie torpid in their nesting holes, an idea capable of proof or disproof. A Fellow of the Royal Society, Dr. Collinson, engaged the collaboration of a clerical friend and with him supervised the labours of men who dug out the holes wherein martins had nested in the spring. As a sand martin's hole may be three feet deep, and Dr. Collinson was not to be satisfied with anything short of exhaustive examination, the task must have taken time. Hole after hole was laid open, nest after nest exposed; and never a sleeping martin cheered the sight of those seekers after Truth. This, however, was only negative evidence; it did nothing to prove that martins migrated; only that they did not hibernate in their nesting holes; they might hide away in hollow trees and caves, like the bats. There in a word was the standard argument of those who did not believe in migration: bats hang themselves up for the winter in hollow trees and caves; so why not birds? It was not unreasonable, when you think of it; bats are warm-blooded, and they become torpid; birds are even warmer-blooded so can resist cold even better—though, by the way, our ancestors did not pay much attention to the temperatures of birds, or any other creatures.

Among the strange ideas of migration was that some species spent the summer in the moon; the woodcock was one of these, but why it should be at the pains to

undertake a journey recognised as lengthy, though not known to be impossible, nobody has attempted to explain. Willughby says the woodcock are reported "both to come and fly away in a mist"; which, inasmuch as the bird comes in October and leaves us in March, if it stays not to breed, is likely to be often correct. This old ornithologist is rather severe on the woodcock:—"Among us in England this bird is infamous for its simplicity and folly." It must be allowed that with his large eyes set so near the top of a small head the woodcock doesn't look sagacious, but he has quite as much sense as any other fowl of his family. The country folk of Antrim assert that the bird on migration carries a stick which it drops into the sea when tired and uses as a perch. A quaint notion arising, I take it, from the long bill carried drooping in flight.

We have much to learn concerning migration movements yet. How, for instance, came that great reed warbler picked up dead at Castletownshend in May 1920 to have travelled so far out of its route? To England it is one of the rarest of visitors; the late Mr. J. E. Harting, to whom I sent the bird asking him to confirm my identification, says in the *Field* of 12th June 1920 that since the great reed warbler was first observed in Britain seventy years before, only ten or a dozen specimens have been reported; this though it is common enough across the Channel. The Castletownshend bird was the first ever identified in Ireland, and the question is, How did it come to be there—fifteen miles from Cape Clear? That a bird might fall by the way on migration is natural enough, but why a member of a species theretofore very occasionally found in the south-eastern counties of England should occur in the extreme south-west of Ireland is a thing that

demands explanation. For many days before the weather had been calm and warm ; so it was no storm victim.

Birds have a sense of direction which is denied ourselves—though manifestly it was lacking in that great reed warbler :—In November 1909 the *Scotsman* published a curiously interesting note written by a man employed in scientific research for the Fisheries Board ; while on board the s.s. *Goldseeker* in the North Sea, heading east, an oystercatcher, buffeted by the high wind prevailing, alighted on the boat. As long as the *Goldseeker* continued her easterly course the bird remained quiet and contented ; but when, after dark, the boat's course was changed a few points to the north, it became restless ; and after a little time flew away eastward on its original line of flight. " The alteration in the vessel's course was revealed to those watching the bird only when the compass was examined " ; and therefore must have been slight ; but even so the changed course was detected by that oystercatcher who, disinclined to be carried out of its way, put forth in the direction it had chosen.

We need not depend on the behaviour of that oystercatcher for proof of birds' mysterious sense of direction ; the faculty is made manifest by various migrants. Take three of our common waders—autumn visitors, all—the curlew-sandpiper, knot and sanderling ; there is doubt concerning the breeding resort of the first-named bird, but it is certainly in the very remote north ; the knot is believed to breed in Northern Greenland and Arctic America, and the sanderling nests in the circumpolar region. In August and September southward-bound flights of all three species appear on our shores, and these consist, especially in the case of the knot, of birds of the year with a few adults. The presence of adult birds with

the migrating flocks of young seems to be quite accidental ; there is no reason to believe that these older birds accompany the young as guides ; if such were their purpose we should expect every small flight of curlew-sandpipers, knots and sanderlings to include one or two seniors ; but nobody has yet suggested that this is the case. How do these batches of young ones from the remote north find their way to our shores ? They do it ; and after six weeks or two months with us, continue their journey south with the old birds who by that time have also reached this country.

The cuckoo offers an example more convincing ; in this bird's case the old ones are the first to set out for winter quarters, most adults leaving in August, or even late July, while their progeny remain, it may be, till October, weather permitting. Is it due to "an occult and secret property", as our ancestors would have said, that they know which way to go ; or do they obtain guidance from other southward-bound species ?

Here is a minor puzzle of migration :—that smartly dressed little bird, the stonechat, finds our winter climate quite good enough for him, and stays with us the year through ; true, individuals which have passed the summer on high and exposed ground come down to wastes more sheltered ; but they go no farther, though their presence on the rough lands near the sea suggests that they did contemplate a southward journey. The stonechat's near relative, the whinchat, is not content to winter in England, and is off to the south early in October, as though fearful of catching cold ; and he remains away till mid-April. Thus we have two species, closely allied yet of different opinions concerning their winter residence. If the food of the stonechat were other than that

of his cousin—if he could find food during the winter while the whinchat could not, the thing would be comprehensible ; but inasmuch as beetles and other insects and worms, with flies in their season, constitute the diet of both birds it does seem strange that one species should stay with us while the other does not.

Do the two of them ever argue about migrating ?

“ Remain at home ! ” the Stonechat cried.

“ Why must you go away ?

Our winter here is much belied ;

Be sensible and stay ! ”

To him the Whinchat made reply,

“ Nay ! I am going south,

If you a warmer clime once try

Its praise would fill your mouth.

“ My brother was induced to stop

And found it horrid cold,

He'd much ado to fill his crop

And—I am growing old.”

“ A mere excuse ! ” the Stonechat said.

“ You're not so old as that !

And as for lack of daily bread

Why, all of us grow fat ! ”

We will not pursue the discussion further, knowing that definite result cannot follow.

Another little problem of the same kind is furnished by those near relatives the meadow pipit or titlark and the tree pipit. Let it be premised that the authorities are not quite of one mind touching the habit of the former—commonest of birds : Macgillivray, whose great work was written during the years 1837-52, said the meadow pipit resided with us throughout the year ; Howard

Saunders, the second edition of whose valuable *Manual of British Birds* appeared in 1899, says considerable numbers leave in autumn to return in spring. It is not for the mere trifler with the mysteries to sit in judgment on these dicta, but a possible explanation may be suggested : the habit of individual birds has perhaps changed during the half-century that intervenes between the writings cited. Anyhow, we will compromise and class the meadow pipit as a partial migrant. Macgillivray knew that the bird is prone to seek the low grounds and sea-shore in winter, and of course it may be that resort to the latter is the first step toward departure by individuals. The shoreward movement in autumn is marked ; anyone who lives on the coast and takes notice of the bird population knows that.

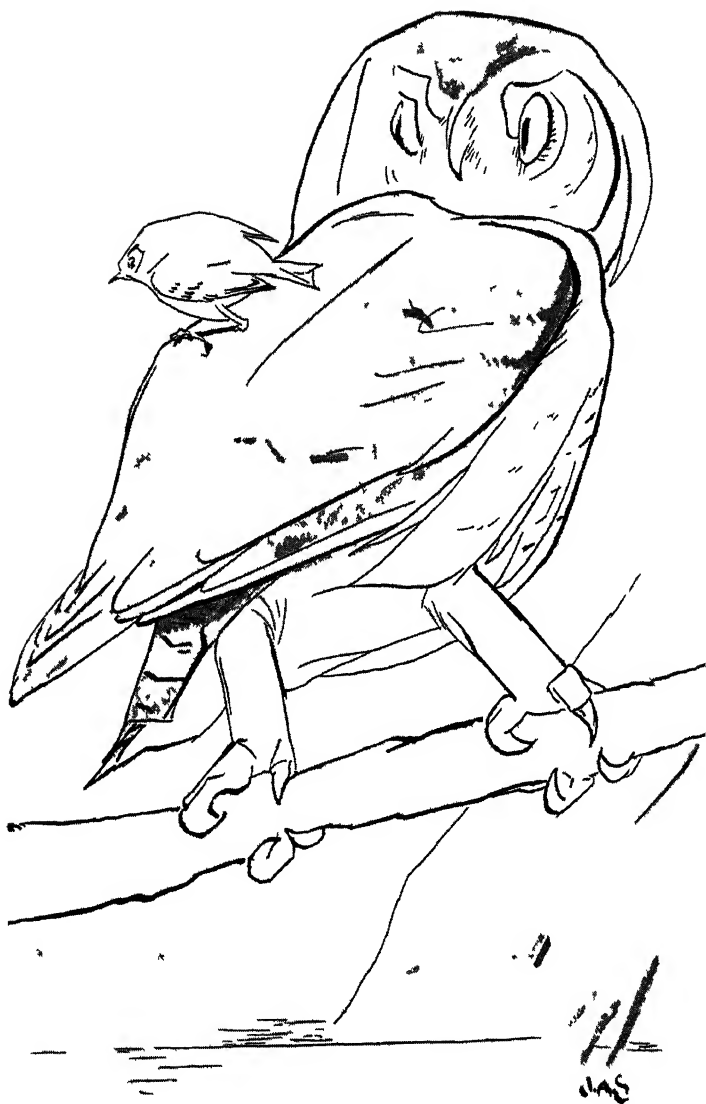
These two birds, meadow and tree pipit are so much alike that you can only tell which is which when you have a specimen in your hand ; the most obvious distinction is in the hind claw ; that of the latter is shorter and has a bolder curve. This by the way ; difference or likeness of dress has no bearing on the point at issue : again, we cannot by any marked difference in food account for the fact that the meadow pipit, for the most part, stays through the winter while the tree pipit turns his back on us.

If you want another puzzle of the same sort, here it is : —Why should the ring ouzel be the only member of the British Thrush Family to winter abroad regularly ? Certainly, individual song thrushes—many of them—fly south in autumn ; but the species, as a species, is resident throughout the year. We know that he visits the grape-growing districts of France when the fruit is ripe and enjoys himself in the vineyards, but is that excursion

enough to explain regular desertion of his native land? If he were true to Family tradition he would eat all the grapes he wanted and return home.

There is a phase of the migration movement which fascinates—namely, the occasional carriage of wing-weary small birds by large ones. The statements concerning bird and beast made by primitive peoples always have some foundation in fact; but we need not accept literally that made by Kalmucks to Gmelin that “every crane flying south carried a corncrake on its back”; still less need we suppose that Dr. Lennep was writing from personal observation in his *Bible Customs in Bible Lands* when he said that at the first sign of cold weather, which warns migrants to fly south, the cranes in Egypt and Arabia circle low over the cultivated fields uttering peculiar cries; whereupon small birds accept this invitation to fly up and perch on the cranes’ backs. I do not wish to underrate the thoughtfulness of cranes or their kindly consideration for smaller birds; but this is asking a little too much of our credulity.

There is plenty of evidence derived from widely different sources to prove that small birds do, when tired, take a lift from any passing big one; but obviously there is a gulf between a large bird inviting a small one to mount and ride, and a small one taking its seat, unasked, on the big one. The most convincing case was that reported in the *Zoologist* of February 1883 by Mr. T. H. Nelson of Redcar; this gentleman was told by Wilson, foreman on the South Gare Breakwater off the mouth of the Tees, that one morning in October a short-eared owl “came flopping across the sea”; as it drew nearer Wilson saw a small object on the owl’s back, and when the bird alighted about ten yards from him, a tiny bird dropped



SHORT-EARED OWL WITH PASSENGER

off and fluttered along the breakwater. Wilson followed and caught what proved to be a golden-crested wren. The strength of this proof lies in the fact that the gold-crest, smallest of British birds, was so weary when its bearer reached the breakwater that Wilson was able to catch it in his hand ; the little bird therefore must have been nearly exhausted when it found safety on the back of the owl. A gold-crest would be no burden for *Asio Accipitrinus* which averages fourteen and a half inches in length. Such an incident leads us to wonder how many small birds, chiffchaffs, willow wrens and their kin, perish by drowning in the course of their migration flights. It may be suspected that members of the smaller species get a lift from bigger birds more often than we know.

Dr. John Rae, the Arctic explorer, was, I think, the first to draw attention to this feature of bird life. He was told by the Cree Indians at Moose and York Factories that a small bird, whose name he had forgotten, habitually rode on the back of the northward-bound Canada goose. The Indians had every opportunity of assuring themselves of the fact, as it was their habit to spend a month each spring shooting the geese from "hides", using a decoy to bring them within range. They told Dr. Rae that the small birds alighted from the backs of high-flying geese when a shot was fired, whence they drew the very reasonable inference that low fliers had already come to earth somewhere, when their passengers would have left them. It is worth noticing that the same story was told Dr. Rae by Indians on the shores of the Athabasca and Great Slave Lakes, both great resorts of the Canada goose ; also by Indians on the Mackenzie River 1,000 miles north of Moose Factory. Another piece of evidence from another land :—Professor Claypole of Antioch College, Willow

Springs, Ohio, was staying in Crete in the autumn of 1878 ; and while there satisfied himself that wagtails and other small birds took passage on the backs of cranes on their southward flight across the Mediterranean (*Nature*, February 1881). Other reports might be cited, but perhaps these suffice to establish it as fact that big birds are pressed into service by small ones. After all, when birds so frequently alight aboard ships for the purpose of a rest they may well seize the opportunity offered by a passing bird ; a much more natural conveyance. ,

Migration movements are curiously intricate, as the observations made at the lighthouses round our coasts have proved. We have immense flights of autumn migrants coming from the Scandinavian countries in search of a warmer climate, and these land on our shores anywhere between the Shetlands and the Humber. At the same time similar flights move *up* our coasts from the south-east, actually passing *en route* the flights which have rested and are continuing their journey south.

At first sight it seems strange that birds which are strictly diurnal of habit should make these journeys at night. The explanation is simple : consider the case of those coming over the North Sea in October when the days are short and nights long ; were they to travel by day they must arrive on our shores at an hour when the shops are shut, so to speak ; and, hungry and tired, could get nothing to eat till next day. Flying by night and arriving early in the morning food is to be had at once. Perhaps it should be said of that short-eared owl who kindly brought the gold crest to the Tees breakwater that his species differs from its congeners in that they fly and hunt by day ; such an owl would naturally make his journey during the night.

An early memory is that of vast numbers of golden-crested wrens which had manifestly landed that morning. It was in a fir copse within a mile or two of Nairn ; every tree had its throng of the tiny birds scrambling eagerly round and about trunk and branch seeking insects ; their hunger was very evident, and small wonder considering the minute size of the birds and the distance they had flown the previous night from oversea. In those days a single gold crest was a sight to remember, and the crowds in that copse were a revelation. When you have seen a flight of almost any species on migration the idea that that species stands in need of protection seems absurd.

Migrating birds fly at very great heights sometimes. In the year 1906 Dr. F. W. Carpenter and Mr. J. Stebbins made observations with telescopes seeking to decide this point. Needless to describe the triangulation method adopted by them working together ; enough if it be said that these gentlemen were able to calculate the elevation of flight in spring at from 1,200 to 1,400 feet, and in autumn at from 1,400 to 5,400 feet. The greatest altitude measured was in October when birds were seen against the moon at no less than 7,700 feet. On the other hand migrants have been encountered skimming the wave crests ; and, as we all know, birds often fly at such height that they seek rest in the rigging of ships and commit suicide against the glass of lighthouse and lightship.

Mr. W. Eagle Clarke, in the *Digest of the Observations on the Migrations of Birds*, notices the curious effect of strong winds on the gulls ; these birds always move against such ; thus, a strong wind from the west fills the bays and inlets of our east coasts, and a similar wind from

the east brings gulls into like resorts on the west coast. Winds of ordinary strength produce no effect on migration movements ; gales, however, arrest or stop them altogether for the time being.

This book was in proof when a friend told me, apropos the earthquake in India, of an incident which points to yet another sense—a prophetic sense—possessed by bird, also insect, which is denied Man. It may be unnecessary to say that in the East during the day silence reigns in the jungle, broken only from time to time by the insane giggling of those loose-feathered, dust-coloured fowls we know as the *sabt bhai*, or seven brothers, which dwell in small parties and haunt the low bushes. Every other winged creature is silent until dark falls ; then bird and cicada, that great cricket—if cricket it be—wake up and atone for lost time ; the shrilling of the latter, loud and unceasing, is wearisome. One night my friend whose work lay in the Burma jungles was startled by the sudden cessation of bird and cicada voices ; the silence of day prevailed : then came a low roaring rumbling and the house shook violently for some seconds. It was an earthquake ; bird and insect became aware of its approach before it was suspected by man.



CHAPTER FIVE

Migrating rats—shrews—weasels. Those pertinacious sparrows again. Lining nests. Long-tailed tit's nest. Nests, neat and untidy. Wrens' "cocknests". Sir Thomas Browne on coot's nesting habit. Nests, concealed and exposed. Nests in Ireland and Norway. Covering eggs. Birds tamer in Ireland and Norway. Neglect of old nest materials. Summer movements of birds.

CHAPTER FIVE

TURN we to migration movements of other sort, of very different sort—that of our small mammals. I heard the other day from Mr. Pullen of this village, who farms on a large scale, a story which set me thinking : one of his men, an old fellow on whose word he could rely, told him that when on his way home the previous evening he encountered what he described as a “ stream of rats ” moving along the field path, all in the same direction, away from the village. There were great numbers, and as they did not show the least fear of him—in fact, seemed unaware of his presence—he thought it wise to leave them alone : wherein he was discreet. The encounter took place one autumn evening, and far from any building. Now, Mr. Pullen’s farm, whence those rats in all likelihood came, is at the end of the village, and it seems tolerably certain that this was a deliberate change of abode. Rats are prolific, and excess of population would at intervals oblige some of a colony to leave home and seek new quarters ; and such movement would take place when the rats decided it was time to seek shelter in the stables and outhouses which experienced members of the community knew would not provide food nor, perhaps, winter accommodation, without overcrowding. A point which intrigues is :—Were those migrating rats young fellows expelled by their seniors, or old and decrepit rats expelled by the rising generation ? In the

animal world Youth is not kind to Age, and it may well be that the rats who migrate under compulsion submit to superior strength.

On the other hand, we can imagine an elderly member of the colony laying down the Law; as thus :—

Scorning the sound Malthusian creed
We now have reached a situation
When we must face the cruel need
Of cutting down our population.

I know that you would rather not
Forsake our dear ancestral drains;
So Ancient Rule decrees, By lot
Choose him who stays and who remains.

Come with me then to yonder stack,
And in obedience to our Laws
Those hapless ones must go and pack
Who chance to pull the shortest straws.

As regards the age of the migrants; if somebody who may encounter them would slay a dozen or two, their teeth would shed light on the point.

This migratory movement occurs with the shrews: the *Zoologist* (dead now, alas; victim of the War) of 1861 contained a brief account of such a “trek” contributed by Mr. Macartney of Glasgow. He and a friend were on a country road at Inverkiss on the Clyde when their attention was arrested by unusual rustling among the dead leaves and grass at the bottom of the hedge. They stopped to look what it might mean, and saw shrews, estimated to number 100 to 150, running nimbly about and uttering their peculiar sharp cry. The shrews were surprisingly bold and, as in the case of the migrating rats, appeared quite indifferent to the presence of the two gentlemen who stood watching. It need hardly be said

that of small mammals the shrew is one of the most pugnacious ; he is as combative as the mole, which is saying much ; and if, under ordinary circumstances, two males meet they are sure to fight. Yet as Mr. Macartney and his friend saw that gathering, which no doubt consisted of shrews of both sexes, all were in pacific mood ; the assembly, we may be certain, was the beginning of a mass movement to new quarters.

Shortage of food and lack of dwelling-space will account for these migrations of rats and shrews ; both are prolific, more especially the former, though the shrew does not fall far behind the rat in this respect, breeding at least twice in the year and bringing forth from five to ten young on each occasion. It is thus evident that any given area which finds favour with the species must in time become overpopulated.

We may rest satisfied that this is the reason for the migration of those two, but how are we to account for like doings by weasels ? They do not live in colonies ; they will assemble in parties to hunt, but lack the deplorable habit of haunting in large numbers places where they are not wanted, like the rat ; moreover, the weasel is not an animal which adds to the population with reckless profusion, the female being content with an annual family of from five to seven. Here is a case of mass movement by weasels observed by Mr. Dodd of Gilsland in 1864 ; we do well to seek these matters in an earlier day when what the gamekeeper calls " vermin " were more plentiful than they have since become. Mr. Dodd was at his shooting quarters, Wardrew, when the thing came under his notice : one evening he heard an extraordinary noise which he likened to the music of hounds at feeding-time, and going out to ascertain the cause, saw " an enormous

drove of weasels ", passing in a sort of procession down the road. They were so numerous, took so long to pass, that he had time to summon a friend, Mr. Walsh, to see the sight ; then, unmindful of the merits of weasels as destroyers of rats, the twain fell upon them with sticks and killed a large number. Apart from the main fact to which we are devoting ourselves—that weasels, like rats and shrews, change their quarters in quantity—it is to be observed that when the gentlemen attacked them they did not show fight. This is curious, for there is no more courageous animal of any size ; there are on record numerous instances of parties, insignificant in number, attacking both dogs and men. What prompts the weasel to such migration ? I leave the mystery to the reader for solution.

You remember those pertinacious sparrows mentioned at the end of the first chapter ? We left them laying the foundation of their seventh effort to block up the gutter ; since then five more such foundations were cleared away with a suitably curved hook of iron wire wielded from a bedroom window ; bringing round the ladder became wearisome. It seemed possible that if the birds were allowed to complete the nest, and eggs were laid before the clearance, the owners might be convinced that it would be better not to build there ; wherefore nest No. 13 was allowed to remain until the sparrow was seen sitting. Then the deed was done ; the ladder came into use again and three eggs were found ; the whole thing was taken away, and the hoped-for result followed ; those sparrows took the lesson to heart and have gone elsewhere to reproduce their kind.

The Attractive Young Person before mentioned en-

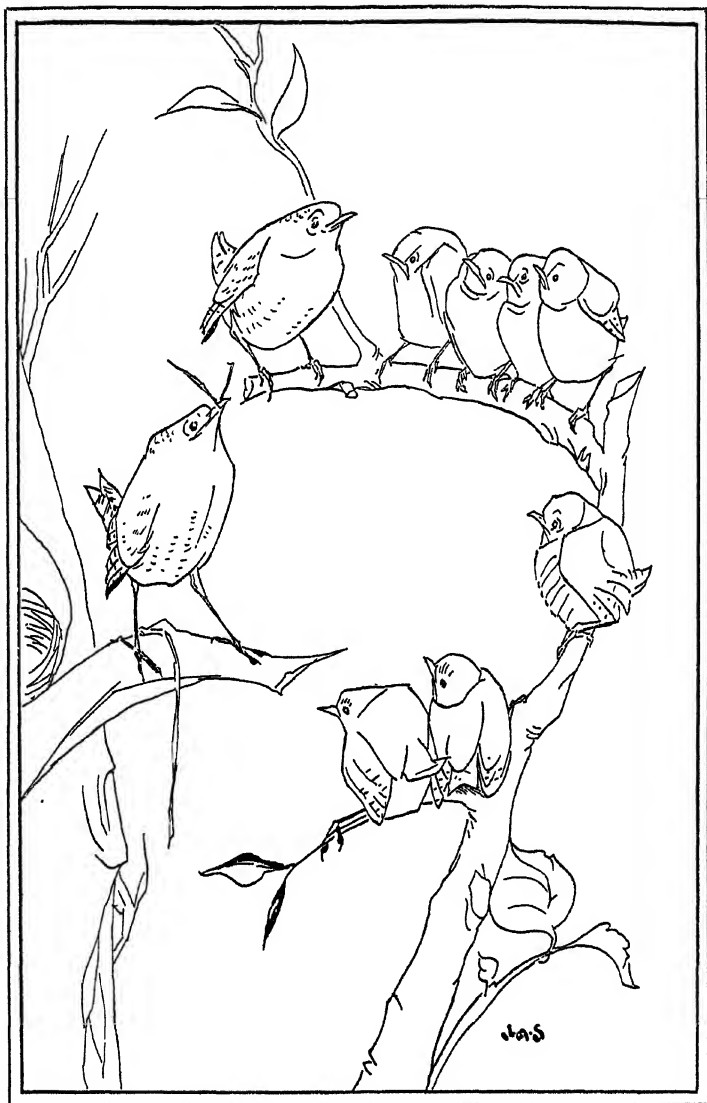
quired to-day how a bird manages to make the inside of her nest so smooth and so perfectly round. Perhaps this is a question which has exercised wits more mature than hers, and I am grateful to the hedgesparrow who built in a bush under my dressing-room window at Castletownshend and showed how the thing is done. The bird, having finished the outer framework, starts in to fill it with soft grass, fibres, tiny feathers, wool or what-not till she has enough to serve her purpose ; then she plunges into the loose mass, grips the bottom with her feet and so turns her round and round, always the same way, until she has pressed the lining material smooth and firm. The work only occupies her a couple of minutes ; when it is done she steps out, considers results with her head on one side, and flies away to get something to eat.

That is the way the house-proud bird finishes off her nest. Without suggesting that the long-tailed tit is not house-proud it must be said of her that she is an exception ; having put together that beautiful bag or "poke" of moss, spiders' webs, lichens and wool, she collects a quantity of tiny soft feathers and half fills that shell—if anything so flexible can be called a shell—and there she stops, laying her eggs without any attempt to reduce the fluff of feathers to any sort of order. Only when the young birds chip out and wriggle about does the muddle get worked down into a sort of mat ; but the interior is never tidy. Let it be said that there is excuse for the seeming carelessness of the long-tailed tit. What could she do with that tail, half as long again as her little body, were she to follow the orthodox method and smooth down the interior in the way described above ? As it is she cannot get the whole of it into the nest when incubating ; she has to sit with the end sticking out of the

entrance hole in the upper part of the side ; were she to try the revolving method she would wear out that tail ; which would be a pity. This explanation of the bird's disregard of interior neatness may be wrong—it probably is ; and if so perhaps somebody will kindly suggest another.

The difference between the nests of various species is wide ; goldfinch, chaffinch, reed warbler—any of a score of small birds—must be shocked by the sight of the erection thrown together by the lesser whitethroat—the merest little platform of dried grass and hair through which the eggs can be seen. Then consider the achievements of fowls of larger growth : is there a nest that does less credit to the builder than that of the wood-pigeon ? A casual collection of twigs laid crosswise, with no precaution whatever against the risk of the young ones falling overboard ; the marvel is that so many infant wood-pigeons survive the perils of early youth. (We all wish they did not, for there are far too many wood-pigeons, but that is beside the point). Truly, the missel thrush, untidy though she be, makes a better job of her nest ; on a mud foundation she places twigs, dry grasses, bents and so forth, and if she stopped there the result might pass muster before a committee of avine housewives ; but she sometimes falls into the mistake of adding a few rags, and does not tuck them in. In Farnham Park my eye was caught by a dingy red streamer of sorts which waved from a bough eight or nine feet above the ground ; this proved to be part of the furnishing of a missel thrush's nest ; the bird had packed away a few inches of the rag and left a foot of it floating in the wind ; a veritable advertisement.

It is a pleasure to turn to birds who take pains with



FATHER WREN GIVES A LESSON IN NEST-BUILDING

their nests ; the common wren for instance, whose egg-shaped dwelling is a pattern of neatness. It is difficult to believe that young wrens, house-building for the first time, have had no instruction in architecture ; and it is braving the scorn of experts to suggest that those unfinished frameworks called "cocknests" are object lessons built by practised beaks for the guidance of youth. The only use made of these cocknests, so far as we know, is to provide snug sleeping quarters for wrens on cold winter nights (though they may eventually be finished and used) ; and it seems to credit the bird with an improbable measure of foresight to suppose that they are made with that remote purpose definitely in view. Equally improbable, I venture to think, is the other theory—that the cocks build these nests to while away time when the hens are sitting. Cock wrens *may* have a passion for nest-building which moves them to this form of industry in preference to idleness, but it doesn't seem likely. It is preferable to imagine the hen gathering her little ones about her and inviting their careful study of their sire's work ; bidding them note and remember how the materials are laid and interwoven. "Ours," she would say, "are the most beautiful of all nests. Observe how they are made as to the framework which is the important part."

It is interesting to see how birds set at naught tradition, as understood in this country, when circumstances justify it. In England no bird veils her nest more carefully and cleverly than the chaffinch, masking it with lichens till only the practised eye can detect it on the supporting lichen-clad bough. In Ireland and Norway, where the rising generation does not go in for birds'-nesting, the chaffinch is at no pains to make her nest harmonise with

its surroundings ; over and over again I have mistaken it for that of a greenfinch, to be set right by the owner flying off and betraying her identity. What she does do in Ireland is to build in a holly whose evergreen foliage conceals the nest from the danger that flies above in the person of the magpie who will pounce upon any egg he may see. The fieldfare, which in Norway practically takes the place of our song-thrush, builds without the least attempt at concealment in some low bush or on the thinly veiled stool of a felled tree ; the magpie is satisfied with a nesting site much more accessible to man than that she chooses in this country. It is to be feared that the pains taken by birds to hide their nests or build them out of reach are due to the depredations of our noble selves.

There is in Dr. William Turner's *Birds* (1544) a statement apropos the partridge which suggests that in former days some birds took against birds of prey precautions they have long abandoned :—

“ For to those kinds in which facility of flight is wanting there is small advantage in a nest ; but in some sunny place (for they breed nowhere else) a space is cleared and sticks and a few briars are collected there, sufficient for them to avoid attacks of Accipitres and Aquilæ.”

Those few briars and sticks could be of no service against avine foes unless they were arranged dome-like over the eggs ; and it is not straining the probabilities too far to assume that this is the meaning the writer intended to convey.

In Sir Thomas Browne's *Natural History of Norfolk*, written at some time in the seventeenth century—the actual date is not known—there is a definite statement in

the sense I read into Dr. Turner's remark ; this relates to the coot :—

“ An handsome provision they make about their nest against the same bird of prey (the kite) by binding and twining the rushes and reeds so about them that they (the kites) cannot stoop at their young ones or the dam while she sitteth.”

We may infer from the author's specific mention of the kite that this was the most common bird of prey in his part of the country. The late Mr. Thomas Southwell, an excellent naturalist who edited Browne's work, notes therein that he had seen some such attempt at concealment of her nest by the coot. A proof that birds are slow to discard a once advantageous habit.

And if partridge and coot, which fowls we need not suppose were peculiarly liable to attack by birds of prey, did this sort of thing is it not at least probable that others took the same precaution ? Now, when all hawks are by comparison with old days uncommon their possible victims have ceased to adopt such protective measures. It is to be regretted that the early writers on ornithology devoted but little attention to nesting habits ; it would be very interesting could we trace the changes, if changes there have been, in methods of nest-building. In this connection it may be suggested that the practice of covering the eggs when leaving the nest is a substitute for the dome, or overhead defence, of an elder day. The dab-chick, or little grebe, does this habitually as do some other birds : the jackdaw often pulls the lining over her eggs when going out, but one cannot feel sure that her case is one it is fair to cite ; an incorrigible egg-stealer herself, she may measure other birds' corn with her own

bushel. Individuals of various species cover their eggs during absence from the nest; the blue and marsh tits have been known to take the precaution.

Certain it is that man's attitude towards birds governs their attitude towards him: in Norway the pied wag-tail, commonest of all birds, flits in and about the house seeking flies, ignoring anyone present. I have had a willow wren, by no means a bold character, perch on my foot as I sat reading in the verandah; lowering the book gently I looked at him; he turned him about on the boot's toe and looked at me; then without haste he dropped to the floor, glanced about him for a space and took his leave.

A trifle occurs which illustrates the lesser timidity of birds in Ireland: in this country the tree-creeper will never let anyone see him if he can help it; he darts round to the other side of the tree-trunk, on which he is hunting insects in the manner of a poacher fearful of detection. In Ireland his demeanour is otherwise; it never occurs to him to try and avoid human eyes; he carries on as though the tree belonged to him. There was one particular tree-creeper who used to accompany the tits, great and blue, on their morning hunt up and about the sycamores in the avenue; a hunt that took place every day during the winter—such as it is in the south-west of Ireland—the trees being methodically searched from bole to branches. I used to go out and try whether the bird would dodge round the trunk; he never did; it was not that the presence of those tits gave him courage, for solitary tree-creeper hunting on the large trees below the house were equally indifferent to the human gaze.

Strolling along the little-used, hedge-bordered, field

paths, the number of old nests rendered visible by the fallen leaves prompts the reflection that birds miss an opportunity by failing to make use of the materials thus going to waste ; the only bird known to exercise this form of economy, and that not habitually, is the reed warbler. It does not occur to birds that they should pull old nests to pieces and use again the twigs, wool, horse-hair, &c., which are none the worse for having done duty once. That accessible situations once used should not be used again is quite comprehensible ; they have been exposed to the human eye and devastating human hand, therefore would be unsafe. Only those birds who build well out of reach, whether aloft on tree or rock, or in secure holes may venture to use the same site year after year—though exception must be made in the case of the house martin who will return again and again to the mud abode under the porch where anyone can knock it down ; that bird, though, is privileged, and evidently knows it. The tits resort, season after season, to the same holes in the old walls of the garden ; these are safe from intrusive fingers ; also, and much more important, from feline paws ; for three years past, if not more, a pair of pied wagtails have nested ten feet up in a pollarded yew, their dwelling well concealed by the debris always found clogging the twigs and boughs of these.

There go blackbirds—seven of them, and all hens. Female blackbirds make up these small parties after the breeding season and go about together ; I have seen as many as nine in a party for days together in August. The cock chaffinches turn their backs on the mates of the year after domestic duties have been discharged, whence the name *coelebs* conferred by Linnæus ; had the great naturalist been consistent he would have found

a Latin name to indicate the habit of hen blackbirds—but the Rights of the sex were unthought of in his day.


This matter of separation of sexes after breeding is one worth attention; also the movements of birds after the moult; we recognise the fact of their seeking seclusion while shedding their plumage, but some species disappear for a much longer period than that process requires. I made a few notes on this subject in Ireland:—song-thrush; disappears from the coastal districts after moulting and reappears at the end of October; very common thenceforward, but rarely seen between June and October. Starling; disappears after the breeding season and returns at the approach of winter. (N.B.—this bird is only too faithful to our locality in Berkshire all the year round.) Tree-creeper; same as starling. Jackdaw; disappears after breeding season; heard again in early August. In these parts the greenfinches vanish from our ken after breeding, and we see very little of them until they flock for the winter. I should like to learn where they spend the interval. Rooks remain at home to moult, witness the wealth of feathers shed into the garden—I am not complaining; to clean a pipe there is no feather to equal that from a rook's tail. By the way, the rookery was deserted throughout August; not a bird was there; on 3rd September a number came in the evening, held an animated debate and left again after about an hour, since which visit an increasing number have called every morning to discuss matters. It is to be observed that a small committee visit daily a group of elms due south about 100 yards away; it looks as though there were intention of founding another suburb there.

The wood-pigeon is another bird who dispenses with the change of air so many other species find necessary when moulting ; like the poor they are with us always. A pity ; we could do so much better without them.



CHAPTER SIX

Courage of sitting birds. A tenacious brown owl. Tame brown owls. In London streets when darkened. Close-sitting pheasant. Storm petrel. Tameness of. Courageous flycatcher. Desertion of nestlings in famine. Robins and Dr. Bastwick. Adoption of old nests. Mis-guided wrens. Labour-saving sand martins. Abnormal nesting sites. Robin's nest in church pew. Babes in the Wood legend. The magpie in Ireland.



CHAPTER SIX

BIRDS betray much greater fear of the cat than of man. Put a finger into the hole in which a tit of any of our common species sits—great, blue or cole—and she is not greatly disturbed ; a marsh tit will defy you, seeking to terrify by inflating her lungs and releasing the air with a “ plop ” like the bursting of a little paper bag ; so too with the blue tit, she warns you off by hissing ; while the great tit sits quiet and waits for you to go. The behaviour of the last named when a cat discovers her nesting hole is otherwise ; a pair took possession of a tiny hole in the wall of the house that shelters the electric-light engine ; it was too high up to permit insertion of a predatory paw, but when our sportscat had nothing worse to do he would sit on the flower-bed below that hole and stare ; which naturally got on the tits’ nerves ; but they did not desert ; I have watched the cock perched on the young birch tree close by with food in his beak, waiting ; not daring, small blame to him, to enter the hole until the cat was hunted away. When the young birds had flown, wire netting was put round the space of wall in which was the hole, nowhere within a foot of it, in the hope that the birds would thus be assured of safety ; for one season they failed to recognise the protective value of that defence and use was not made of the hole ; this year, either the original pair or another have realised the benefits of wire netting and it is occupied again.

A sitting bird on occasion displays extraordinary tenacity ; this incident occurred at Bridport in 1901 :—The inmates of the workhouse—those hostels were so called thirty years ago—were carting a load of wood from a farm a few miles from the town, and the last item to be taken was an old apple tree which was put on top of a fairly high load. When the cart reached the workhouse yard that apple trunk was the first to be thrown on the ground, and, to the astonishment of the men, a white egg rolled out of a hollow therein ; another heavy log was thrown down and, falling on that apple trunk, the jar expelled another egg ; whereupon the attention of the workhouse master, Swaffield, was called to it. He recognised the eggs as those of an owl, and while he stood there one of the men, peering into the hollow trunk, cried that there was something alive within. The something proved to be a brown owl who allowed herself to be taken out, and was subsequently caged with wire netting in her retreat. No shock it appears could move that tenacious bird from her nest ; unflinching she bore the trial involved in hoisting the log on to the cart ; was unmoved by the jolting over some miles of road back to the workhouse ; and withstood with unshaken fortitude the worst shock of all when the trunk was cast from the top of the load and two of her eggs were shaken from under her. It looks as though she had been in a state of coma induced by prolonged contemplation of nothing in the silent darkness of the hole.

A bird of equable temperament, the brown owl taken young is readily tamed, one might say easily domesticated. The two shown in Mr. Shepherd's picture were acquired as nestlings and kept for two or three months ; then, being of an age to cater for themselves, were given their



THE YOUNG TAWNY OWLS WHO CAME TO SEE MR SHEPHERD
INTO BED

liberty. They seemed not to appreciate it, taking up their quarters in a tree near the house where they made no difficulty about sitting for their portraits ; more, they gave convincing proof of their preference for human society, inasmuch as Mr. Shepherd, entering his bedroom one night, found the two of them perched side by side on the foot-rail of his bed, apparently of a mind to stay there. Whether they had come to see a kind master safely tucked up or expected him to provide the mice they were too lazy to catch for themselves, only the owls could have explained ; but Mr. Shepherd, disinclined to share his room with brown owls, put the pair of them gently outside the window. Evidently their feelings were hurt by this rejection of their advances, for from that hour they were seen no more ; they shook from their feet the dust, if there were any, of the house whence they had been thus expelled and left, scorning to trespass upon the hospitality of one who, whatever his care for them in youth, did not make them welcome at midnight. He is also an adaptable bird. Dwellers in Kensington will remember the celerity wherewith he began to parade the streets when darkened and deserted during the air raids. He had haunted the grounds of Holland House for years—was no doubt a resident of old standing long before the house was built—and judging by the frequency with which one heard the familiar “*Too-whee, Too-whee*” the fact that rats and mice were to be had for the catching in the streets must have been made widely known among the brown owl population in the vicinity of west London.

Some birds are curiously indifferent to disturbance while incubating : a pheasant in Kinnoul woods near Perth allowed me to part the twigs on the oak stool whereon she had her nest and look upon her for half a

minute ere she thought fit to leave her eggs. A very different fowl, the storm petrel to wit, is trustful; Mr. Saxby, brother of Dr. Henry, the ornithologist, says he has pushed aside a sitting petrel with his finger, after gently rolling back the stone which concealed the nest, and watched the bird settle down again on her eggs before the stone could be replaced. It is to be observed that the storm petrel is of oddly confiding nature. Captain Boyd Alexander writes:—

(*From The Niger to The Nile*.) “Last night, 15th January 1909, a stormy petrel flew into the saloon while we were playing cards; this makes the fifth to do so on this voyage. I always give these little wayfarers a lodging in my cabin for the night and release them in the morning. It is useless to free them at night as the glare of the lights only brings them back to the ship again. They are charming birds, and the confidence they show is remarkable, nestling in one’s hand as if they had known one all their lives.”

Colonel Lloyd Howard reported to that long-extinct weekly, *Land and Water*, of 11th July 1896 a remarkable case of courage displayed by a flycatcher—no doubt the spotted, the pied being rather uncommon—which had nested in the fork of a dead bough of a very old cedar of Lebanon on his lawn at Loughton. The tree was struck by lightning and split from top to bottom, the flash passing close behind the nest and forcing it out of position. The young birds, uninjured, remained in the nest five days longer ere they took flight. Any bird will do more for her chicks than she will for her eggs, but it will be admitted that the maternal flycatcher showed pluck.

Parental affection notwithstanding, there are conditions

under which birds desert their progeny wholesale. Such was the case during that exceptionally dry spring and early summer of a few years back ; the ground was hard, so hard that worms and grubs, meet food for the young, were not to be had ; it was all the old ones could do to keep themselves alive ; and, obeying the stern mandate of Nature, they left nestlings to their fate and took such care of themselves as they might. Very heartless ? No doubt ; but adult birds who will breed again are of more account in Nature's scheme than nestlings which cannot be kept alive ; so better that the latter starve than their parents.

It is rather strange that so bold and confiding a bird as the robin when on her nest should display as much timidity as, say, a thrush ; better things might be expected of a fowl that perches on the basket while you are weeding, or comes into the house and alights on the table asking for food. A few years ago there was a robin who habitually took his, or her, place on the Hampstead dustmen's cart, and travelled round with it through the streets, alert for anything edible that might be thrown in from the sanitary dustbins. The bird had somehow discovered that this was the easiest way of getting a living.

The robin has always regarded man with a friendly eye. In the year 1637 the public were impressed and touched by the behaviour of numerous robins towards Dr. John Bastwick. For that he had denounced the Bishops as the enemies of God and the Tail of the Beast, the Star Chamber sentenced him to lose his ears, to pay a fine of £5,000 and be imprisoned for life ; and because Dr. Bastwick was thus made a popular martyr and attempts at his rescue were feared, he was sent to the Scillies. He landed there on the 16th October and, says William

Prynne, who was in similar trouble at the same time, on Dr. Bastwick's arrival "many thousands of robin red-breasts (none of which birds were ever seen in those islands before) welcomed him with their melody, and within one day or two after took their flight from thence, no man knew whither."

It is a pity to mar so pretty a story ; we should like to think that those many robins were moved by compassion for poor Dr. Bastwick, and sang thus to herald his coming as sympathisers with one undeservedly ill-treated ; but the date gives us pause : the 16th October. Not all robins stay with us throughout the winter ; many emigrate when the cold weather approaches, seeking a more congenial climate ; and though robins had never been *seen* in the Scilly Islands before it would be rash to conclude that they had never landed there. When they took their flight within one day or two after they continued their journey southward.

Birds sometimes display indolence, appropriating old nests of other species and fitting them up for their own use ; such was the proceeding of a great tit whose nest I found in that of a thrush abandoned, apparently, in the previous year. It was an unusual site for a great tit to adopt, in a thick thorn hedge ; but she evidently realised that much trouble would be saved were she to use that old nest as the foundation, or casing, for her own. This was flagrant violation of the wise rule mentioned in the last chapter ; for between taking an old nest as it stands and refurnishing an old one there is very little difference, in so far as safety is concerned. Of course we can admit the merit of originality on the part of that great tit ; if a bird chooses to set at naught Family tradition and strike out a line of her own, there is really no reason why she

should not ; she need only remember the rule " Safety First ! "

Now and again we find a bird thus flouting orthodox methods ; surprising us by building in very unexpected situations :—

The chaffinch that builds in a scarecrow betrays

A legitimate taste for variety.

The titmouse that nests by a sister displays

A praiseworthy love of society.

The robins may build where their whim shall advise,

And be guilty of no impropriety.

If larks did the same, you would open your eyes

And declare that they sought notoriety.

It's true that my ancestors built in a hole ;

But if I, who view holes with dubiety,

Determined to build on the top of a pole

You would question, no doubt, my sobriety.

Remember that birds of original mind

May forsake their established tradition,

And be not surprised if you happen to find

That they choose some abnormal position.

Originality, of course, may lead to disaster, as was the case with the wrens who built in this garden last year. We have an old apple tree, the first eight feet or so of whose trunk lies almost level with the ground, and then rises skyward ; on the outer angle a bough at some distant date had been cut off, leaving a hole 26 inches above the ground and shallow. Now, the level length of trunk is a favourite playground of the cats, a fact which should not have escaped the notice of the least observant wrens ; yet this pair, who cannot be acquitted of contributory negligence, elected to nest in that hole in the outer angle ; so shallow it is that a thread or two of dry grass peering out was not needed to betray ; and the

sportscat found it ; the surprising thing is that he did not do so before eggs were laid and the wren was sitting, so ill-concealed it was. Anyhow, he did find it and to my great annoyance clawed out the whole thing. The point to be made, however, is the wrens' departure from traditional methods of nest-building ; theirs was a cup-shaped nest, not a domed, as wren fashion prescribes. I conclude that this style was chosen because the hole is only three inches from floor to roof, rendering, the birds thought, a dome unnecessary.

The sand martin is a very capable miner but is not averse from saving labour, chance offering. Travelling to Worcester some years ago, we stopped at a small station (Ross, I think) and the unusual conduct of sand martins held attention ; they were flying in and out of a series of small drain-pipes in a wall which upheld a garden above the road. Those pipes were almost, if not quite, within reach of the pavement below, but their diameter forbade insertion of any hand. It really looked as though the birds had carefully estimated the relative sizes of hands and pipes, and decided that these were safe nesting holes. And consider the amount of toil they saved !

Abnormal nesting sites offer an interesting subject. One of the oddest vagaries recorded was that of which Mr. Dunbar Brander of Pitgaveny in Elginshire sent an account to the *Field* : near this gentleman's house there is a small loch one end of which is overgrown with reeds and rushes, forming a popular breeding site of the black-headed gulls which assemble there in hundreds at the nesting season. Within 20 yards of the margin of this reed-bed Mr. Dunbar Brander kept his small sailing boat moored to a stake ; apparently the boat had not been used that year, until on the last day of May 1877 the owner

went down to look at it, and found a gull's nest on the locker in the bow. Failing to see why his boat should be used for this purpose when the reed-bed which satisfied other gulls was so close at hand, he threw the nest overboard. Five days later he visited the boat again, and to his surprise found a new nest completed and containing eggs. Mr. Dunbar Brander was touched by the pertinacity of the gulls and let the nest remain ; and, to quote the rest of his letter to the *Field*:—

“This time I took the boat out and used it for an hour and a half ; then moored it to the stake again without interfering with the nest. I did not go near the boat again till Saturday the 9th (of June). There had been high winds and the boat had broken adrift, and was stranded about 200 yards from its original position but remaining perfectly upright. The gull was sitting on the nest. I took the boat and, hoisting a sail, crossed the loch, being away about an hour ; and all the time we were sailing one particular gull kept flying overhead and screaming—no doubt the owner of the eggs. I afterwards moored the boat in its old place, and walked down there the same evening ; the gull was on the nest in the bow. I do not intend to disturb the bird again if I can avoid it, till the young are hatched ; when two days old they are independent of the nest, though they do not go far from it.”

A case rather like this, involving a pair of moorhens was recorded in the *Field* of 5th June 1875. At Barnewell in Northamptonshire is a house with a moat round it ; and floating in that moat was a log which drifted “hither and yon” as the wind willed ; or lay still. The birds, apparently ignorant of the log's vagrom habit,

elected to build thereon ; and got so far as to choose a lining of grass which matched the bank against which the log was lying for the time. Came a breeze which wafted away the log to leave it against an earth bank. The moorhens considered the matter, decided that the lining must be changed to harmonise with these new surroundings, and superimposed dead leaves on the grass lining. This matched the earth bank very well, and doubtless the hen bird would have settled down to lay her eggs, had not the wind interfered again, drifting the log to yet a new resting place which entailed a third lining—green again. And scarcely had this furnishing been completed when the log set off on another trip, the moorhens faint yet pursuing. How long this kind of thing might have gone on it is impossible to say ; the charitable, and interested, owner of the house who had been keeping watch on the proceedings thought it was time to stop them ; so he made the log fast to the bank whose hue the nest-lining then matched. An odd feature of the business was that there is in the moat an islet which offers as many eligible building sites as the most exacting moorhen could desire.

The moorhen, by the way, has an accomplishment I have not seen mentioned in any book, to wit, ability to walk under water. Struck by the disappearance of a bird which ran to a stream and vanished, I went to look, and saw her through the clear water, about 15 inches deep, walking on the gravelly bed with wings partly opened ; there were thin trails of weed waving in the current, and it seemed that the moorhen was grasping these to aid her as she walked upstream.

Strange are the whims of birds : what, for example, could have led that jackdaw to set aside tradition to such extent that she nested in a rabbit-hole ? (I notice, by the

way, that I assign responsibility for these doings to the hen ; which may not be fair.) It was the more curious because close at hand was a plantation with a rookery, which indicates a sufficiency of nesting sites for jackdaws. Of course, it may be that among the rooks were one or two abandoned characters who kill and eat young birds, and the jackdaw thought the rabbit-hole an unlikely place for her chicks to be sought. Or was it mere whim such as induced that blackbird to build in a rabbit-hole somewhere near Haslemere ? This latter was constructed entirely of green moss, lined with dead grass, and was well hidden.

For unnecessary trouble the nidificatory edifice (that dreadful expression for "nest" has been haunting me ever since it appeared in a book on birds otherwise sensibly written, and I must get it out)—the nest made by a pair of nuthatches near East Grinstead in 1871 probably takes the prize. This bird is about $5\frac{3}{4}$ inches long, a fact worth noting in connection with the affair ; and the recognised site for the nest is in the hollow of a bough the entrance to which the bird reduces with mud till of a size to admit her and no more. For some reason best known to themselves these East Grinstead nuthatches were at the pains to burrow in a haystack a hole which they proceeded to line with mud, brought from a pond some 150 yards distant ; this they lined with the scaly inner bark of the fir ; the entrance, five or six feet from the ground, was plastered up to suit the nuthatches' views. The birds were seen at work during six weeks or two months, and when the nest was finished, and cut out of the stack to send to the *Field* it weighed 11 pounds, measured 13 inches from top to bottom and 8 inches at its widest, the shape being that of a pear set up on the

stalk end ; the walls were 4 inches thick. When we consider the amount of mud a bird less than 6 inches long can carry, we get an idea of the labour undertaken by those nuthatches. It is one thing for birds of original character to determine on a dwelling which shall not resemble that of their neighbours, but this looks like eccentricity gone mad.

The robin might have a whole chapter devoted to her nesting eccentricities ; for well-considered audacity the palm goes to the pair who chose a book ledge in a pew in the church at Thame Park in Oxfordshire. One Sunday Mr. Wykeham Musgrave's family found the beginnings of a nest on the ledge between books, and, lest they disturb the birds, moved into another pew. On the next Sunday the nest was finished and contained five eggs ; on the third Sunday the hen sat on her nest throughout the service ; and in due time the young hatched out and were fed by the parents flying out and in of an open window.

The idea that the legend of "The Babes in the Wood" had foundation in fact occurred to me on seeing a robin's nest with eggs in so gruesome a place as the ossuary of a Breton village church :—In old days when the country was so extensively covered with woods and wastes and there were no roads, when inns and shelters of any kind were few and far between, and poor travellers went afoot, fatalities in winter must have been frequent, pedestrians often losing their way. Now, suppose the case of a mother with two children overtaken by night and snow while in the wilds. After vainly seeking the track the woman leaves her children under the shelter of bushes, probably covering them with most of her own rags, and sets off to seek a refuge of some sort. She finds none, cannot find her way back to the spot where she left her

children, and all three die of cold and exposure. In such case, the party having wandered from the recognised track, the bodies might lie undiscovered till only the bones remained. What more likely than that robins, with their taste for odd nesting-places, should build in a recess in one of the skeletons, and build there season after season till the accumulation of materials—moss and leaves in both real life and legend—reached such bulk that it looked as if the birds had deliberately endeavoured to cover the little body—perhaps both? Add wicked uncles and hired assassins, and you have the tale complete.

Legend, from a date never determined, has assigned to the robin a habit of covering the face of the dead. The poets of the sixteenth and seventeenth centuries refer to the charity that prompts this proceeding, and they do it in the strain which befits a matter of common knowledge. Michael Drayton mentions it; so does Thomas Dekker; also Herrick. Lupton, in his *Thousand Notable Things of Sundry Sortes*, says in sober prose that the robin “Finding the dead body of a man or woman he will cover over the face of the same with moss; and some hold the opinion that he will cover also the whole body.” Thus there is a sufficiently broad foundation for the story of “The Babes in the Wood”.

A legend may well grow out of a fact. Was it not Charles Kingsley who said that when we discovered that such beings had actually existed we were ashamed to call them dragons and named them Pterodactyls instead?

An instance of departure from orthodox usage by magpies sticks in mind. As we all know, the magpie is not a sociable bird in the same sense as the jackdaw and rook, though one does often see small parties of them where

the species is at all numerous ; but magpies prefer to nest in comparative solitude away from their kind, whether because they can't trust their kind or for other reason we need not enquire. Driving on the borders of the County Cavan and County Monaghan my attention was caught by five unusual-looking nests each within a yard or two of its neighbour in a clump of fairly tall trees ; the nests were large, very carelessly put together, and over each, quite clear of the main structure was what can only be described as a " flying roof ". I had the jarvey pull up, and waited for a few minutes, wondering what these nests might be ; then magpies came and settled the point by adding a stick or two apiece to the roofs. I have seen those detached roofs to magpies' nests since in Ireland, but never five pairs nesting within a few yards of one another. There is no reason why the Irish magpie—an immigrant—should not strike out a new line in domestic architecture if it please her, and it would be interesting to know whether these flying roofs have always been the fashion. The magpie, comparatively speaking, is a recent settler in Ireland: Dr. Andrew Boorde, in his *Dyetary of Helth* (1544), says " there is neither pyes nor venimus worms " in the country ; and he is confirmed by Fynes Morison writing in 1617. Dean Swift refers to the County Wexford in 1711 as the only part of the island in which magpies were to be seen " until late years ". So we may assume that the bird began to extend its range about the end of the seventeenth or early eighteenth century. The late Mr. G. E. H. Barrett Hamilton made the matter the subject of an essay in the *Irish Naturalist* of December 1898.

The people eye the magpie askance in some parts of the country and would gladly exterminate it if they could ;

but only the reckless have the hardihood to rob the nest ; he who should do such a thing must expect the bird to mark him for an enemy and, revengeful, kill his chickens. This retribution, however, might be escaped by anyone who has the energy to climb a tree twice ; once to collect the eggs and again to replace them after boiling the same. Even a bird of such unearthly discernment as a magpie won't guess that her eggs have been hard-boiled and that she wastes her time trying to hatch them !

There was an ironical saying that when the magpie left Ireland the English would go ; a saying that has been falsified. But let us abjure politics.



CHAPTER SEVEN

Abnormal nesting materials. Insane birds? Deaf to intermittent noises. Ancient ideas concerning the nightjar. Faith of beast and bird in immobility. The Raven. Reputed expulsion of young. Good deeds of. Changes of voice. The case of Mr. Draper. Courtship. Mr. Shepherd's bird. The "night-raven". Mysterious powers of barn-door cock.

CHAPTER SEVEN

EVEN as birds on occasion display eccentricity in choice of nesting site, so do they sometimes show an extraordinary taste for abnormal materials ; though it would seem that when such are used it is simply because they lie conveniently at hand. Take an item from Sheffield where, in 1861, Mr. Stirling Howard exhibited to a local society some horse-shoe nails, representative of a two-gallon can of the same taken from a blacksmith's forge and used by pigeons to build their nests. One such nest weighed 14 pounds ; all nails, and so carefully laid that in no case did a point project inward to injure the eggs when they should arrive. Though straw and wood-shavings in plenty lay about the pigeons would none of them for lining ; they began and finished with nails.

At the meeting of the British Ornithologists' Union in February 1899 some very curious nests were shown ; among them one of herons built almost wholly of such wire as is used in some makes of reaper for binding sheaves. It was a very good nest, but the birds had made the excusable mistake of underestimating the weight, and failed to fasten it securely to the boughs ; hence it only required a gale to bring the whole thing down. Scrutiny with field-glasses showed that other members of the heronry had also used wire, but not to the same injudicious extent, and their nests survived.

Stoke Park in Nottinghamshire was the scene of this mishap.

A similar nest on a very reduced scale was that of Indian crows found in a mango tree in Merchant Street, Rangoon ; this was contrived exclusively of soda-water bottle wires ; each wire had been straightend and manipulated in such wise that the end should not protrude into the nest. It was allowed to remain until the usual four eggs had been laid, the chemist, from whose yard the wires had been taken, wishing to see whether the birds would add a lining ; there was plenty of straw and shreds of coir where the bottles lay, and it was thought some of these materials would be used. However, the crows were quite satisfied with the wire basket they had put together. It weighed a little over half a pound, representing about 300 wires. This nest was sent to the Calcutta Museum.

The proceedings of a pair of crows in Bombay might have led to trouble but for the plea of a native foreman who understood crows : a certain optician, missing several spectacle frames, gold, silver and steel, suspected his artisans of theft ; a number of frames had been made over to each man and none could render account of the total he had received. There was talk of discharge and police, and with some difficulty the foreman persuaded his employer to postpone action, declaring his conviction that crows were the thieves. And so it proved ; watch being kept, two crows were seen to enter the workshop window, seize a frame apiece and fly off with it. The nest, soon discovered, proved to consist of seventeen spectacle frames. Nothing is said about the lining in this case. The optician regretfully declined to present the nest to the Bombay Museum ; had the crows been

content with steel frames, he said, the Museum should have had it; but gold and silver frames—No!

Three nests of chaffinches shown at the meeting of the B.O.U. abovementioned were rather curious; one was masked with confetti; another had paper worked into it; and the third was masked with scraps of tea-lead as a substitute—and by no means a bad one—for the usual lichens; at a very short distance the tea-lead might be mistaken for lichens.

Which recalls an odd case of decoration of the nest by chaffinches, reported by Mr. Shephard Walwyn in *The Times* of 27th May 1930; so far from trying to hide their nest the birds went out of their way to make it conspicuous adding a vertical decorative fringe of cocks' tail shackles: "the effect of her bright eyes as she sat incubating, peeping through an arch of miniature field-marshal's plumes was singularly charming"; one can well believe it; but her example is one wise chaffinches should not follow. Of course the explanation may be that those chaffinches were not quite sane; perfect sanity need not be looked for in every creature whether attired in feathers, fur or merely skin. A hen blackbird at Abingdon was mentally deficient if her behaviour goes for anything; wearing white feathers in her tail she was readily identified and her proceedings watched; she built three nests in succession without finishing one of them and laid an egg in the last incomplete nest; infertile, as she had no mate. The odd conduct of a rook led me to believe that he, or she, was slightly "wanting"; the bird used to alight on the lawn in front of the house and stalk to and fro, head in air, as though wondering why it was there, or trying to remember what it had come for. It never probed the turf for food; never varied its majestic

pace ; sometimes it would come within a few feet of my study window and stare ; then stalk away again to the shade of the sycamore. After half an hour or more of this kind of thing the bird would take itself off.

It is difficult to decide whether the moorhen who adorned her nest with forget-me-nots did so in an æsthetic spirit or was merely making a belated attempt to make the nest harmonize with the flowers blossoming on the bank ; “ belated ” because she had hatched out her brood a week before. Miss Bland, of Inglethorpe Manor, Wisbech, who recorded the incident in *The Times* of 26 May 1930, assumed it to be a decorative effort ; but having regard to the birds’ frequent endeavours to make nests correspond with their surroundings, intention to conceal seems the probable explanation. Moorhens cannot be expected to know that flowers fade and thus cannot fulfil the purpose for which they are used.

The subject scarcely comes within the scope of Nesting Curiosities but may as well be mentioned here—the singular indifference birds display towards intermittent noises ; one can understand their turning a deaf ear to a ceaseless roar like that of a waterfall, but the unmoved calm with which are endured loud noises, continuing for an hour or two at a time, or only for a few minutes strikes one as curious. We have had such a case here when those great tits chose a tiny hole in the wall of our engine-house as their nesting-site ; the hole is within a foot, or at most 15 inches, of the dynamo, and there is but a single brick’s thickness between that and the nest. The engine runs either thrice a week for a couple of hours, or daily for an hour and 20 or 30 minutes ; and while running you can’t hear yourself speak inside the engine-house. Yet it never disturbed the tits ; they appeared

not to know there was any noise at all. When at Molmen in Norway, fishing, I was impressed by the apparent deafness of the swallows who had their nest on a beam in the roof of one of those little saw-mills worked by water-power. That mill was worked only at very irregular intervals, but the birds flew in and out of the open shed feeding their young, utterly indifferent to the scream of which a circular saw has the monopoly; the nest was seven or eight feet above its upper edge. Swallows seem peculiarly indifferent to such noises; I have notes of similar cases observed in this country.

For heroic disregard of intermittent noise, though, first place must be claimed for that pair of pied wagtails who nested in a nook immediately under the railway line near Gascoigne Wood Junction on the N.E. Railway in 1895. The hen hatched out her five eggs regardless of the trains thundering over her head a dozen times a day.

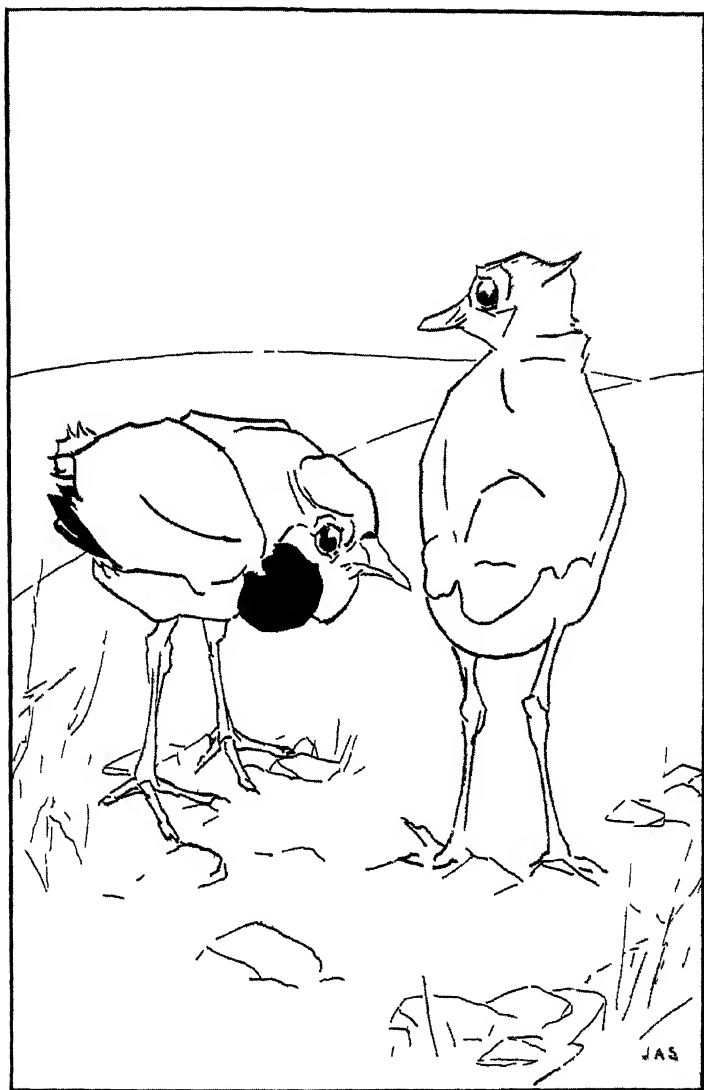
Birds are not peculiar in this regard; in the *Field* of 18th April 1875 was mentioned a nest of four young rabbits under a sleeper on what was then the L. & N.W. Railway, a line over which numerous trains ran daily. A parallel case occurred in the Isle of Wight, a nest of three young rabbits being brought to light immediately under a sleeper by an inquiring dog.

A nightjar was heard here last night; an unexpected visitor, for there are not about us the rough uncultivated lands that appeal to him. As the hedgehog was charged with sucking the udders of cows, so was this bird accused of sucking those of goats; a libel perpetuated in one of his popular names; "goatsucker" to wit. A blameless flier by night, he varies his pursuit of moths and other insects by squatting lengthwise on some bough and wind-

ing up his watch, which he does noisily and indefatigably ; to no bird is given a more singular voice. Dr. William Turner who wrote in 1544 has painted the nightjar's character as understood by his contemporaries, his informant an aged man who fed his goats on the Swiss mountains. The aged man explained that the bird was blind by day, wherefore it flew by night ; it sucked the goats' udders, and the goat whose milk was thus feloniously abstracted went blind and her udders withered. The aged man had had six goats blinded thus ; but his troubles of this kind were at an end when the Doctor met him, all the goatsuckers having flown away into Germany, where, it was understood, they were more mischievous than ever ; not only did the goats they suckled go blind ; they died.

Taken by surprise during the day the nightjar reposes faith in immobility ; landing quietly from a boat one afternoon at a bank thickly strewn with brown dead leaves, I saw the bird with partly opened wings, matching so perfectly the leaves whereon it lay that one might have passed a score of times without seeing it. "Dead !" I thought and reached for it ; my hand was within a couple of feet when to my amazement the bird rose, and flitted away into the shrubbery like a feathered ghost. It was evident that, taken by surprise, it counted on its resemblance to the dead leaves and absolute immobility to escape notice.

Mr. Shepherd told me of a striking instance of birds' faith in immobility to escape notice, the more noteworthy because the incident involved very young birds, thus proving the practice inherent. He came upon a brood of lapwings and deciding to sketch them, drew out his book in readiness ; the little birds stood for several



YOUNG LAPWINGS POSE FOR THEIR PORTRAITS

minutes like good children posing to be photographed, and gave him time to take their portraits, the slight movement of his hand with the pencil evidently escaping their attention. Then he turned the page, and either the rustle or the movement made his subjects believe they were seen, for they incontinently fled.

I had an experience of the same kind with a squirrel ; loafing one day in a wood, when it was too hot and still to fish, I came upon the little beast busy with a fir cone on a low stump ; the soft moss deadened my footsteps and he only saw me when about ten feet separated us. At once he fled for the nearest tree and sped up it without observing that it was a spindly young fir ; feet high. Discovering too late that he couldn't climb to safety he concluded that the right procedure was to remain perfectly still ; so he sat bolt upright on a twig, one hand clasping the stem, the other laid against his breast as though trying to still the throbs of a beating heart. His head was turned to face me round the stem, and there he sat while I, very cautiously indeed, approached to see how near he would allow me to come. Stopping within two long paces of his refuge, for over three minutes (I timed it by my pulse, hands behind) we two stared at one another ; then some involuntary movement of mine gave him to think he was seen and had better be off, for he jumped down, to scamper away over the tussocks to a tall pine a little distance away. It is difficult to imagine how that squirrel could have thought himself hidden on a poor scraggy fir not much thicker than a walking stick with a few sparse twigs. It was clear that he put his trust in absolute stillness.

The nightjar, otherwise goatsucker, is not the only bird about which our ancestors wreathed their imagination.

Above all the raven was the subject of strange beliefs ; a sort of avine scapegoat. The Koran seizes the earliest chance to decry him, asserting that he taught Cain how he might hide his crime ; killing a brother raven by way of object lesson and scratching a grave wherein to bury his victim. Bartholomew Anglicus, the monk who wrote on Natural History in the thirteenth century, says that "Raven's birds are fed with the dew of heaven." This is a variant of the habit ascribed to the bird by Aristotle, who affirmed that ravens turned some of their young out of the nest rather than be at the trouble of feeding the whole brood ; a thing no raven ever did. In this latter fiction, probably, lies explanation of those passages in Holy Writ (Job xxxviii. 41 and Psalm cxlvii. 9) which specify young ravens as recipients of the Creator's special care.

Good deeds have been written to the credit of this maligned fowl, but they weigh nothing against the defects of person and voice which cause him to be accurst. That ravens fed Elijah in the wilderness ; that they protected the body of St. Vincent from wild beasts after his martyrdom ; that they guarded the tomb of that saint when the Christians of Valencia, having rescued the remains, buried them on the Portuguese coast, are virtuous doings that count for naught. Vain the efforts of the bird to win a place in man's good graces ! So big, so black, with such a voice, he was never able to make headway ; he was always regarded with superstitious awe. The sages of old counted sixty-four "changes" in that voice of his, and read meanings into all ; if while hovering about the house he said "Gradh, Gradh !" the occupant of that house knew he might expect the priest ; if he said, "Gracc, Gracc !" a youth would call ; and so on to the

64th variation. His actions were equally significant, and, let us hope, more useful as a guide to mankind ; if he croaked above a man's bed where weapons were kept that man might expect to be sent on active service and come to grief ; or he would fall ill. If he croaked above the pillow the housewife might prepare for her end ; if he croaked from the north-west corner of the house it meant that thieves were coming to steal the horses.

The worst gift of the raven was his ability to foretell death ; the man upon whose house he alighted did well to put his affairs in order. Consider the sad story of Mr. Draper, recorded by Ross in his *Arcana Microcossi* ; Mr. Draper's untimely demise was brought about by ravens ; he was "in the flower of his age" and in robust health when it happened, about 1646. It so befel that two ravens fighting on the roof fell down the chimney into the gentleman's bedroom ; a very grave portent ; so grave that Mr. Draper, his friends and relations, knew he was about to die ; and they were all so sure of it that poor Mr. Draper, robust health and flower of age notwithstanding, did die. Of course it may be that his was a weak heart, and his medical man had never detected it. The raven was sometimes heard to laugh when he saw a funeral ; a thing no decent bird would do. Delight at fulfilment of his prediction of death was held to explain his indecorous behaviour.

To no bird has Time brought more drastic changes than to the raven. Let us suppose him versed in his family history :—

Mine was an office no bird else could reach ;
Men marked me come and trembled at my speech,
My very glance would put them ill at ease,
For, truth to tell, I seldom spoke to please.

They read the meaning of my every croak
 Uttered from roof-tree, stable-yard or oak ;
 It might be daunting but it must be right,
 Were't death of master, house afire or blight.

Now am I fallen from mine high estate
 Croak ! I might prophesy from dawn till late
 And men would smile. Alas ! How men forget,
 And how times change ! They keep me as a pet !

Turning from the raven of fiction to the raven of fact :—
 under normal conditions he is as grave and sedate as becomes a bird of his size and colour ; but in early spring when courting the lady of his choice he is said to forget himself and perform for her delectation antics worthy of a tumbler pigeon. The only pair it was ever vouchsafed me to have under observation almost daily must have been an old married couple, for the cock never regaled us with any display of aerial acrobatics ; the most he did was to escort his wife to the upper air, and there the two circled about one another, for all the world like flies on the ceiling.

Mr. Shepherd possessed a raven for twenty-one years, and a most entertaining character she was ; she would bark like a terrier, bay like a foxhound (her master walked puppies for the hunt, so she picked up this accomplishment from them) ; she would bow gracefully to Mr. Shepherd, and when not hunting a stout pug who went in mortal fear of her, she caught mice ; she was an expert mouser. Incidentally this bird had always been supposed a cock, so Mr. Shepherd was more than surprised one day to find she had laid an egg. She proceeded to lay four more and, having thus put him right concerning her sex, incontinently died, to his great regret.

There was another bird of evil repute called the night



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MR SHEPHERD'S RAVEN ELIZA ILIAS ELIJAH

raven, which Willughby opined was none other than the bittern. He has "no doubt this is the bird our common people call the night raven, and have such a dread of, imagining its cry portends no less than their death or the death of their near Relatives. For it flies in the night and answers their description of being like a flagging collar and hath such a kind of hooping cry as they talk of."

I have no idea what a "flagging collar" may be like; even Wright throws no light on this; so we must be content to know that it resembled a bittern whose form is familiar to some of us, if only as a stuffed specimen.

Superstition of the consoling sort attached to the common cock of the poultry yard; he was the foe, nay, the Master, of All Evil Things, which were many in past centuries; none could withstand him; above all, he was anathema to the Devil himself, a most precious quality in days when the Evil One walked the earth in person and people cherished a wholehearted belief in his appearance at night. Such was the power of the cock over ghost, goblin and all malign spirits that his first crow after midnight was accepted by such Beings as a command to "retire to their places" and punctually obeyed. Where those "places" were nobody inquired; it was enough that all things evil vanished from earth. We can imagine the relief of him who listened for that first crowing after twelve o'clock; the terrors of darkness had ceased; man, an he would, might walk abroad in safety. This comfortable belief gained currency in the fourth century. It may not be quite out of date yet.

At certain seasons the behaviour of the cock lent colour to the conviction that he, like the horse, saw Things invisible to the human eye. The awed spectator might


watch him descend from his perch and war with the Unseen : a fearsome sight, his battle with beak and spurs against Nothing, just as he would fight in the cock-pit. And the cheering feature was that the cock always won these spectral battles : how reassuring to see him, his invisible enemy vanquished, fly dustily up to his perch again, flap his wings and crow the crow of triumph ! The hours of darkness were full of peril ; but there was always the cock to take the part of Man. The Devil himself was powerless to harm either the bird or the person who held him.





CHAPTER EIGHT

Mr. Geo. J. Scholey's observations on the cuckoo. American cuckoos. The black ani. Young cuckoos as food. Birds formerly fattened for food. Dr. Boorde on small birds. Wheatear. Quail; now rare in England. Longer survival in Ireland. Formerly thought poisonous. Vipers in early medicine. American ideas on snakes. Vipers swallowing young.



CHAPTER EIGHT

AN article in *The Times* by Mr. George J. Scholey of Cliffe at Hoo, Rochester, on the subject of cuckoos and their production of eggs induced me to write to him ; with the result that he gave me a fund of information both new and curious and also kindly allows me to publish what he has said.

First apropos the number of eggs laid in a season by any given bird :—Mr. Scholey says of a statement made by another observer, “rarely less than 12 is not at all a bad shot ; I have had a 19, many 16s, 14s and 12s, but I find tens also very prevalent. Where the larger series has been located I have had to ‘farm’ them a bit, and probably the removal of some of these eggs has caused the cuckoo to lay more. I have had to do this to save the fosterers, as in time certain territories would have become altogether denuded of certain species of small birds. Where, however, things have progressed in normal fashion, tens, elevens and twelves are general.

“The perfectly blue egg of the cuckoo is common on the Continent, with redstarts as fosterers, but we do not get them in this country though, as my letter in *The Times* [10th July 1932] states, I trace a distinct blueness in many of the cuckoos’ eggs now being found with hedge-sparrows and the reasons given in my letter are I believe correct. . . .

“ . . . I have never found blue eggs of the cuckoo

after forty-five years of hard field-work, during which time upwards of 1,000 eggs have been seen, and never one entirely blue."

In a word, after pointing out that cuckoos adopt certain fosterers and impose upon them year after year, whereby the eggs gradually assume the colour scheme of those of the fosterer, Mr. Scholey offers the very probable conjecture that the hedge-sparrow is a more recently acquired fosterer, and time is required for the resemblance to develop; this, having regard to the wide difference in colour between the egg of a cuckoo laid in the nest of meadow pipit and the clear blue of the hedge-sparrow's egg must be a matter of time. Returning to Mr. Scholey's letters:—"The hedge-sparrow will sit on pebbles, and in this case there is no need for evolution to proceed on the same lines as, we will say, of a tree pipit who will forsake her nest for the merest trifle. . . . The mentality of some birds is remarkable; for instance the pied wagtail immediately ejects any cuckoo's egg I may introduce into her nest, proving beyond doubt that she knows her own eggs apart from the cuckoo's; yet I have *seen* these birds allow a cuckoo to remove three out of four of their eggs, lay her own and, before the cuckoo is out of earshot the wagtail is back on the nest sitting on one of her own eggs with that of the cuckoo; and not attempting to move till I thrust my hand into the nesting hole."

To further questions Mr. Scholey was good enough to respond. I had asked his opinion on the presumed mortality among cuckoos, as it appeared that production of ten eggs or more should result in the bird being even commoner than it is:—

"The usual mortality takes place with cuckoos as with

all other birds. Young cuckoos just out of the nest lurk in the herbage, being fed by their foster parents for probably three or four weeks after they leave the nest. During this time they fall an easy prey to stoats, &c., and I have known instances where sparrow-hawks seem to take a special liking for the flesh of young cuckoos, which, in my opinion, are fatter and plumper than adults. Then there is the migration—to and fro. In spite of these adverse factors one would expect to see cuckoos more plentiful.”

Leaving this country as they do after their seniors it does seem possible that many young cuckoos perish on their southward migration flight. Also it is to be remembered that they, like other birds, have natural enemies awaiting them in their winter haunts.

Mr. Scholey writes further :—“ I am certain that those eggs, all of one type are laid by the same cuckoo. Most of my observations have been made at short range—from hides with convenient peep-holes placed at suitable places all over a cuckoo’s territory ; I identify various cuckoos by certain peculiarities such as broken feathers which the bird carries all through the season ; I have photographs of these same cuckoos carrying the same identification marks taken on 27th April and at intervals until 12th July when I took the last.

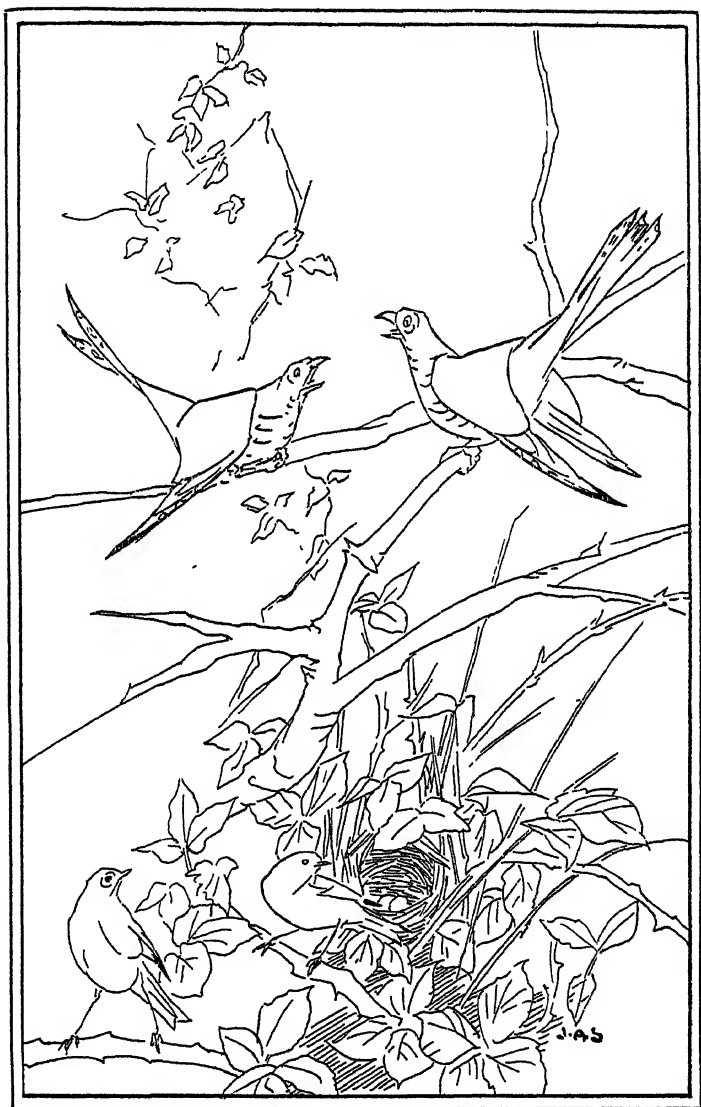
“ A cuckoo parasitic on a certain species will brook no rival, and will fight to the point of death over a favourite pitch ; when a dominant cuckoo becomes burdened with a rival she will not lay her eggs while her rival stays on, but goes to the uttermost to police those nests in which she has already placed eggs. In the course of a week she triumphs and then carries on as usual. If the intruder wins she invariably destroys those nests in which the other

bird has laid ; the fosterers then rebuild and the new cuckoo uses these rebuilt nests for her own eggs." The fight is carried on with much vehement scolding and flirting of tails : the invading rival may be a young bird about to embark on family duties for the first time—possibly the " eternal triangle " again. To return to Mr. Scholey's notes :—" The cuckoo dominates and the fosterer submits, much in the same way as that a boy will obey a dreaded leader. There is an irresistible attractive influence existing between a cuckoo and her natural fosterers which through the ages have come to realize that their destiny is to rear these aliens and they do it quite simply and naturally. The subservience of these fosterers to the enchantment of the cuckoo is marvellous ; but no words will do justice to the wonder of it all."

A judgment to which we all cordially subscribe ; while mindful of the patience, close observation and enthusiasm of Mr. Scholey who has brought to light these intimate details of cuckoo life ; undoubtedly the most curious and interesting of any bird.

A list of the cuckoo's fosterers, or dupes as some prefer to call them, was given in the *Ibis* of 1898 ; and this disclosed some singular vagaries on the part of the bird. Possibly the cuckoos who thus departed from tradition felt the urgency to lay and could not find in time a nest of the species they wanted ; otherwise it is hard to account for discovery of eggs in respectively the nests of species differing so widely in size as the missel-thrush and golden-crested wren ; one such case of each occurring in the list mentioned.

It is a thankless business trying to drag a public character off the pedestal he has occupied for generations ; but the curious inquirer is exercised to know what the



THE CUCKOO IN POSSESSION BROOKS NO RIVAL

cock bird does with himself while his mate is busy imposing her domestic duties upon others. He arrives before her and lets us know it ; not his, when his wife arrives to argue with her the merits of nesting sites ; not his to bear part in building a nest ; not his to cater for her pensively incubating. True, he eats the woolly bear and other caterpillars harmful to fruit trees but he can't do that the whole day. His is an idle life at best.

I have performed my task
As Harbinger of Spring ;
Now you all come and ask
Why do I idly sing !
CUCKOO !

I'll answer your demands—
Cuckoos, thanks to their ways,
Have time upon their hands,
To use the common phrase.

We hold no vulgar views
On "pure domestic bliss",
Wisdom its toil eschews ;
Our scheme of life is this :—

My wife, sagacious hen,
Finds incubating dull,
So brings within her ken
Some birds that she can gull.

Eggs planted here and there
Dupes hatch because they must.
She has no further care ;
Those nurses she can trust.

So when her eggs are laid
To this umbrageous tree
Gay as a care-free maid
She will come back to me.

CUCKOO !

There are cuckoos and cuckoos, America has a num-

ber of species called "Kow-kows" (whether this be the birds' pronunciation of their name or that of those who hear it, I know not), and at least two of these, the yellow-billed and black-billed, are birds of more estimable character than our species, building nests for themselves and rearing their own children. Their nests are not such as any self-respecting bird would erect, consisting of a few sticks to form a platform; nevertheless this is an example other cuckoos might well follow.

In his *Argentine Ornithology* the late W. H. Hudson describes a cuckoo called the Black Ani whose incubating habit is very curious; a number of hens lay in the same large nest—sticks lined with leaves—as many as 20 or 30 being found in one. They are handsome, mottled blue on a grey ground, the size of bantams' eggs, or a little larger. Whether a number of these cuckoos join forces to hatch them, whether two or three together take turns with another small group, or how the incubating is managed we are not told. More than one bird must devote herself to the task as it would be physically impossible for a single hen, 13 inches long, to spread herself over 30 eggs at once without leaving some uncovered. It is a strange system; but cuckoos cannot conduct themselves like other birds.

Mr. Scholey's remark that young cuckoos appear plumper than the adults arrests notice; sole charges of their foster parents, the infant cuckoo may be said to live on the fat of the land. We recall Aristotle's appreciative criticism of the bird; which was that the offspring of the cuckoo is "both particularly fat and of a grateful flavour"; from which we learn that in his day young cuckoos were not left to the tender mercies of stoat and hawk.

There is nothing at which to cavil in that; we need

not look so far back as Aristotle's time to find that birds of which now we take no account as food were caught in numbers and fattened for the table ; such was the fate of the song-thrush in the fifteenth century according to old Palladius who wrote on *Husbandrie* about the year 1420. Such too was the fate of that pretty little winter visitor, the knot, great numbers of which arrive on our eastern coasts in autumn ; Sir Thomas Browne says the " Gnats or Knots " were taken in nets and fattened under what we should call the " intensive " system ; they were kept in a room and fed all day and all night ; for it was found that if a candle were kept burning the knots never ceased eating. Under these conditions they grew " excessively fatt ", which is not surprising. When, from this over-indulgence in the corn given them, they were at the height of their fatness they began to grow lame " the birds were killed as (being) at their prime ".

The ruff, once common but now a rare visitor, was also netted and kept to fatten ; but the ruff's disposition is such that a different system was employed ; whereas the knot was kept always in the light, the ruff had to be kept in darkness : " For ", says Willughby, " let in but the light upon them and presently they fall to fighting never giving over till one hath killed the other, especially if anybody stand by." That last suggests that the ruff had the childish habit of showing off.

" Come on and fight me ! " cried a ruff.

" You coward, craven, reevish muff,

Come on and see the sort of stuff

Of which I'm made ! "

The other jeered, " Well, here's a lark ;

He talks of fighting in the dark ;

Is he an owl to see his mark ?

The saucy blade ! "

Their owner came, and brought a light,
And then the two began their fight,
They went at it with all their might.

The man, he cheered

“Go it, black ruff, and give him fits.
Go it, the white, peck him to bits.
I back the bird who hardest hits.
Let the best win!”

The feathers flew and then the gore;
They fought till they could fight no more,
And *he* expired on the floor
Who did begin.

It may be doing injustice to the birds to suggest that they exchange personalities thus before coming to blows; but let it stand; there must a challenge of some sort.

Dependent as they were on home supplies our forebears made the most of the meats with which Nature furnished them. “All manner of small birds”, says Dr. Andrew Boorde, “be good and light of digestion, except sparrows which be hard of digestion. Titmice, colmoses (great tits) and wrens, the which doth eat spiders and poison, be not commestible.” He adds that of all small birds the lark is the best; an opinion unfortunately held to the present day. That warning against eating sparrows, tits and wrens has a certain pathos; it shows that people ate anything and everything that flew; but truly a large number of tits or wrens would be required to make a meal for the most abstemious. The wheatear, a spring arrival and an early one, was eaten in former days. In the *Annals of Agriculture*, Volume 22 of 1806 this passage occurs:—“On the common Downs of Sussex the commoners stock the land with sheep and bullocks in charge of a herdsman chosen by the tenants; among other privileges the herdsman has that of catching wheatears for his

own use." No doubt the herdsman ate them himself and furnished his neighbours therewith; wheatears would be quite as good eating as skylarks.

There is reason to believe that the quail once visited this country in larger numbers than it has done for over a century past. Why otherwise should Dr. Turner, in 1544, marvel "what evil genius put it into the mind of fellow Britons to esteem quails among their delicacies when their flesh is liable to (provocative of) so many ills, namely poison and the falling sickness"? Which, if it does not indicate great plenty, shows clearly enough that quails were to be had. Then we have the evidence furnished by Blome in his *Gentleman's Recreation* in 1686, a century and a half later; in the Falconry section of that work we find the quail coupled with "the wheatear and the like" as meet quarry for that beautiful little hawk, the hobby. From which it may be fairly inferred that quails were common enough to deserve the attention of the falconer. Yet a century afterwards the fact that Penant thought worthy of record the shooting of a quail at Erith in January 1781 proves rarity in his day, so far as England is concerned. The bird was to be found in Ireland to a much later date; the late Mr. G. H. Kinahan, writing in 1897, says he "began on quails" in 1850 with a terrier; it was then "a regular game bird of Ireland, when on a day in September your bag would be almost solely made up of quail"; Mr. Kinahan shot individual birds in 1879 and later; he was unable to say when the quail ceased to be a "regular game bird", but he knew it as a resident species, breeding in the country until it "took it into its head to bid us good-bye".

Two factors operate against the bird's making this country a residence—it loves rough uncultivated lands

and these, to a great extent, have disappeared under the plough; but more potent is the netting industry carried on along the shores of the Mediterranean when the birds in vast numbers are on their way north from April to the middle of May. It has been stated that as many as 100,000 have been taken on the Italian coast over a space of four or five miles in a single day. Some endeavour has been, or is being, made to control the doings of the quail catchers, to the end that French sportsmen may get their share, but no recent information touching this movement is available. As for this country, nowadays the man who shoots or sees one writes to the *Field* or *Country Life* about it.

As regards the poisonous qualities of the quail; the Romans ate them freely, so had every chance of proving or disproving the idea. Calverley's lines suggest an explanation—you remember?

Of more material facts that cakes
Were to be bought for four a penny
And that excruciating aches
Resulted if we ate too many.

The symptoms of excess whether in cakes or quails might be mistaken for poison.

Of course our ancestors had remedies for various ills, the most repulsive—to our ideas—being sundry preparations of the viper. Some considerable search has failed to reveal how vipers were cooked to secure rejuvenation; that they did recover a man's youth to him was well known: "He hath left off of late to feed on snakes," says Massinger, "his beard's turned white again." The Rev. Edward Topsell in his *Historie of Alle Foure Footed Beastes* (1607) says sketchily that the flesh "ground to

powder and eaten with other meat (because of the loathing and dreadful name and conceit of a serpent) keepeth youth, causing a good colour above all medicines in the world. It cleareth the eyesight, guardeth surely from grey hairs and keepeth from the falling sickness". A medicine that achieved so much should have made the "conceit", or idea, of eating snake flesh of no account, but it was ever thus with man; Dr. Boorde says that in Italy the snake was called the Mountaine fysshe; it is on the same principle that cannibals call their human victim "long pig". Viper broth was highly esteemed; it does not sound appetising, but faith in its curative properties survived for centuries. Dr. Richard Mead, who died in 1754, had a high opinion of vipers in medicine:—"the form in which they are used to the best advantage is that of broth or *jus viperinum*, of which an elegant preparation is directed by the London College"; and physicians were still prescribing viper meat roasted or boiled, more especially for elephantiasis, leprosy and advanced consumption, when George III was king. There were sceptics; one Dr. Lewis had known a viper eaten every day for about a month in disorders of the leprous kind without any apparent benefit; he also doubted the efficacy of viper wine. Dr. Lewis's views were not acceptable to the Faculty; so bold a practitioner was too far in advance of his time.

A white viper was a treasure. The fortunate person who found one had only to boil it down and drink the resulting soup to become endowed with ability to foretell the future. I have never seen a white viper myself, nor do I know anyone who has; and it must be extremely uncommon; so uncommon that seers thus created were also rare.

Strange indeed were the ideas of our ancestors concerning snakes; we learn what they were from America, whither, doubtless, they were carried by the early settlers who handed them down to posterity. These notions were so widely held that it was considered necessary to try and dispel them with the Voice of Authority; whence the most singular official publication ever given the honours of print. This was a "Bulletin", or, as we should call it, a "Blue Book", published in 1907 by the State of Pennsylvania, the work of Professor Surface, State Economic Zoologist; its avowed purpose was to "correct the more universal errors prevalent among the people" concerning snakes; and one seems to discern a note of impatience in the curtness of the Professor's dicta:—"Snakes", he says, "do not sting with their tails. Snakes do not charm people or birds. There is no such creature as a hoop snake which rolls like a hoop with its tail in its mouth. No certain kinds of snakes milk or suck cows. It is not true that when snakes are killed their tails do not die till sunset or till it thunders. Snakes do not spring or jump from the ground at their victims": and more to the same effect. To the good folk who believed these things the sight of a snake must have been terrifying indeed.

In the sixteenth century, and possibly later, there were those who attributed the absence of snakes from Ireland less to the ban of St. Patrick than to some mysterious quality of the Irish soil; wherefore the fact mentioned by Dr. Boorde:—"English merchants do fetch of the erth of Irlande to cast in their gardens to keep out and kill venymus worms."

"Do Vipers Swallow Their Young?" This question was much to the fore in the early 1890's, giving rise to a

lively correspondence in the *Field* and elsewhere. Many persons whose eyesight and regard for truth were trustworthy maintained that they had themselves seen a female viper when alarmed, open her mouth and receive into her interior for safety the young ones about her. Other persons, also deserving of credit, maintained that the thing was impossible. Those who had actually seen an adder take her young into safety thus, described the incident in detail; some had killed the mother, opened her up and found the little ones alive and unharmed; and some witnesses told how they had seen the young ones emerge from the mother's mouth when the mother was killed. Mr. H. Tootal Broadhurst of Cambus O'May in Aberdeenshire saw a viper swallow—or take into her inside—six or seven young ones; he was standing within three or four yards of her, and could see distinctly what passed. This gentleman conceived an interest in the subject and through the Press invited correspondence thereon; with the result that he collected evidence from many quarters, including Australia and America, all confirming his observation; some of those who wrote on the subject were surprised that there should still be room for discussion, regarding the fact as one long established (Sir Thomas Browne, writing in the seventeenth century, accepted it as proved). From the Australian and American letters it appeared that the diamond snake and rattlesnake had been seen to receive their young into the mouth in time of danger; whence it might be concluded that this habit is common to the whole race of reptiles. There were, however, those who refused to believe, notably that good naturalist the late Mr. Tegetmeier, to whom the subject at one time was as the proverbial red rag to a bull. It must be admitted, *pace* the incredulity of my old friend,

that the evidence assembled by Mr. Tootal Broadhurst in his pamphlet, "*Do The Young of Vipers Take Refuge Down the Throat of the Mother in Cases of Sudden Surprise or Danger?*" puts the matter beyond doubt.



CHAPTER NINE

The musk rat. Grey squirrel. Goats in St. Helena. Brown rat. Black rat. Rabbit in Australia. Mr. Rodier's method of decimating. Foes of rabbit in Australasia. Sparrow in America. Other U.S.A. bird importations. Starling in New Zealand. Mongoose in Jamaica.



CHAPTER NINE

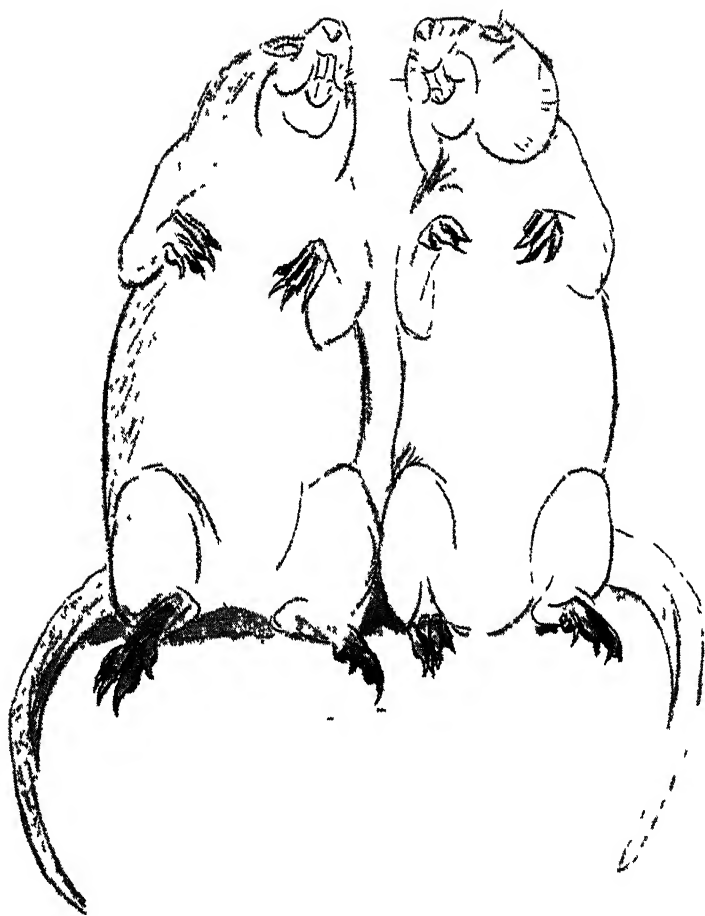
I

BY "Natural Enemies" I mean Animal Enemies, such as the musk rat, imported to the end that large fortunes might be made from his skin under the trade name "musquash"; such furs must have a trade name—imagine a furrier who valued his solvency offering a garment avowedly made from the skins of any kind of rat! With the wealth of experience, painful enough, gained in our colonies seeking the aid of "Natural Enemies" to battle with indigenous foes we ought to have known better than admit the musk rat at all. True, precautions to prevent his escape from confinement were enjoined on those who possessed him; the beast was to be kept rigorously imprisoned, his owner was to keep a record of births, sales and deaths, and the place of his abiding was to be open to official scrutiny at all reasonable times. One vital detail was overlooked; to wit, that any burrowing animal is particularly difficult to keep under control. The musk rat soon demonstrated his talents as an excavator, and now, as everyone knows, we are trying to exterminate him.

A few years ago it would have been correct to say that with the single exception of the red deer in New Zealand, imported for sport and denied opportunity to increase beyond desirable numbers, no alien species has ever been imported into any country without that country repent-

ing the step, and paying heavily for the indiscretion. Now it is possible to make another exception in favour of the mongoose in Jamaica whose case will be considered later. We have a case under our own eyes in the person of the grey squirrel who, dissatisfied with the accommodation furnished by the Zoological Society, has spread over the country, expelling in the great majority of cases our native red squirrel. That grey squirrel has cost us nothing in cash yet, but it is too soon to assert that that will continue.

The first mistake of the kind is a very old one ; in the year 1513 the Portuguese to whom St. Helena then belonged, imported goats for the sake of milk, in itself a reasonable proceeding enough. In those days the island was forest-clad as to its mountain flanks, and there was abundance of undergrowth. Goats being browsers, they were allowed to run loose on the wooded slopes, and they did well ; they throve so well that seventy-five years after their introduction they were to be counted in thousands. And then results began to appear ; they ate down the undergrowth on the hillsides so thoroughly that when the rains came the soil, released from the detaining roots of the bushes, slid down the rocky steep and left them bare ; and in consequence the large timber began to die off for lack of root-hold. In 1709, the island then having passed into possession of the old East India Company, the governor reported that the forests were rapidly disappearing, and urged that steps be taken to kill down the goats before complete denudation of the hills ensued from the too healthy appetites of those goats. Why the governor did not take upon himself the responsibility of ordering the necessary step history sayeth not ; the fact remains that nothing was done. A century later total



UNDESIRABLE ALIENS RECOMMENDED FOR SLAUGHTER.
MUSK RATS

destruction of the forests was reported, and it became necessary to import fuel. The cost of fuel for government use alone thereafter is said to have amounted to over £2,700 a year; no small item in the St. Helena budget.

The common brown rat has been so long established in this country that we forget his foreign extraction. His original habitat, says Blanford in his *Mammals of India*, is Chinese Mongolia; but why the pest set out upon his travels it is impossible to guess. Bold and enterprising, he is said to have crossed the Volga by swimming and made good his footing in eastern Russia in 1727; and after that there was no holding him; he spread all over Europe. Our own supply of brown rat did not come from this invasion; it seems to have been an accidental importation, the first stock arriving as stowaways in a vessel or vessels from western India in 1732. Before the arrival of the brown rat the black species was common in Britain, but the former, being the stronger, in course of time almost exterminated the latter, which, however, has recently been increasing thanks to the measures adopted to make the basements of modern buildings rat-proof. The brown rat being thus excluded from the haunts of his preference, the black rat, many of which arrive, free and unwelcome passengers by ship, has seized the opportunity to resume his former hunting grounds; and, says Mr. Hinton of the Natural History Museum, makes his way along the telephone wires from house to house, a thing his brown cousin could not do. The gods seem to have decided that we must support a rat population of one kind or the other, and if we won't have the brown we shall have the black species.

Next, in chronological order, comes the rabbit in Australia. It was in 1864 or thereabout that one Mr. Robin-

son (to whose memory nobody has proposed a monument) obtained from England and turned down on his sheep-run in the Warrambool district of Victoria, thirteen rabbits. Mr. Robinson did this, seeking the sport he had enjoyed at Home ; and, about the same time, rabbits were imported into New Zealand and Tasmania. They did only too well wherever they had been released. By June, 1870, over 100,000 had been killed and after fifteen years rabbits had spread so widely and become so numerous that they constituted a nuisance. The governments of the various provinces took the matter in hand. South Australia led the way, passing laws for the destruction of rabbits ; New South Wales, Queensland, New Zealand and Tasmania followed suit, declaring merciless war on the plague. Millions of money were spent on endeavours to check it ; thousands of miles of wire netting were erected, a special Department was established to superintend operations ; in a word everything ingenuity could devise was done to stay the spread of the rabbit. All in vain ; in spite of poison, wholesale trapping in pits and every means of slaughter the rabbit continued to reproduce his kind and spread. In 1887 over 19 millions of rabbits were killed in New South Wales alone. New Zealand tried importing natural enemies—cats, stoats, weasels and polecats—but the remedy proved if not worse than, nearly as bad as, the disease. Certainly the new arrivals slew rabbits, but they killed also the native birds, including the flightless species peculiar to the country.

It was about the year 1890 that Mr. Rodier, who owned some 64,000 acres of pasture in New South Wales, hit upon a plan for decimating rabbits which has given good results. In this country the rabbit is held monogamous, the contented husband of one wife ; Mr. Rodier found

good reason to think that the animal, established in the Antipodes, renounced the principles of his species and became polygamous; and it was on this assumption he based his system of destruction—the fewer does the better, because the fewer progeny. The aim therefore must be to kill off the does. He set to work; and during twelve years and three months to the end of 1903 he caught alive 42,484 rabbits of which number 16,807 were bucks and 25,677 were does—65·45 males to 100 females, which confirms his opinion that the rabbit in Australia is polygamous. Now, polygamy makes for the increase of a species while polyandry does the reverse; wherefore Mr. Rodier killed all the females he caught and released the bucks after marking them so that they should not, if recaptured, be counted again. The results of this method during the ensuing years were instructive: in 1904 for every 100 does caught and killed 53·4 bucks were caught and released; in 1907, pit traps being used, eighty-five bucks were released for every 100 does caught; and the difference between the herbage on Mr. Rodier's side of the wire-netting fence and on that of his neighbours testified to the decrease in the rabbit population. Things had developed as he anticipated; the males exceeding the females, they harassed the latter to such a degree that their breeding opportunities were curtailed with the natural result—fewer young. Moreover, the bucks contracted the habit of killing young ones. Mr. Rodier's plan, if generally adopted, would go far to relieve Australia and the other colonies of the plague from which they have suffered for so long.¹

¹ Among rats the does exceed the bucks in number. Many years ago when interested in the matter of proportion of sexes I obtained information on the point from Mr. Ike Mathews, author of *The*

Let us turn to the case of birds imported into our colonies and America for one reason or another ; we will take the sparrow in America first. There is no lack of information on the subject as the United States Department of Agriculture collected details from some 3,000 persons and embodied the digested results in a " Bulletin " of over 350 pages.

The reason for importing sparrows into the States is obscure ; one authority affirms that the only explanation is the desire of British settlers to hear again the familiar chirp ; another opines that the bird's reputation as an insect-eater led to the belief that sparrows would be an acceptable addition to the avi-fauna of the continent. Where the sparrow acquired that reputation it is hard to guess ; about 75 per cent of his diet, as proved by examination of many series of crops, consists of corn, with a small admixture of seeds of noxious weeds. Whatever the reason or reasons, considerable pains were taken to acclimatise the sparrow ; the first attempt was made in 1850 when eight pairs were landed, caged during the winter and released early in the following spring. These did not thrive ; but America was determined to have these so-desirable birds, and in 1852 a committee of the Brooklyn Institute was chosen to arrange for the importation of sparrows ; over 200 dollars was subscribed for expenses, and an order given for collection and shipment at Liverpool. About 100 sparrows and some song-birds

Full Revelations of a Professional Rat-catcher ; he wrote :—" I should think without doubt that there are more female rats in any nest of young ones, simply because if I catch 100 rats at a threshing I should think there would be 60 females to 40 males ; and in the ordinary way of ferreting round wheat or other cornfields, and these are mostly rats that have bred the same season, I have noticed that if I caught a dozen I might not have above four males."

were sent over, and fifty of the former were released at the Narrows ; the rest, or such as survived the winter, were given their freedom in Greenwood Cemetery, as a safe haunt, and placed under the care of a watchman. These did thrive ; and thus encouraged the misguided lovers of the sparrow sent for more ; various consignments varying from half a dozen to 1,000 individual birds were imported and sent in batches larger or smaller to sixteen different towns of the Union. It is to be observed that pains were taken to distribute sparrows ; at those sixteen places the birds came direct from Europe ; but there was widespread desire to have them, and the Department of Agriculture compiled a list of over 100 towns in the States and Canada to which sparrows were taken and set free. Completeness is not claimed for that list ; on the contrary, we are told that it represents only a fraction of the whole, and a very small fraction at that. Further, sparrows distributed themselves ; one factor in their spread was the birds' occasional choice of a grain car on the railway as a roost ; no doubt they had been feeding on the waste corn and went to bed when their crops were full ; and the grain car which served as bedroom might be railed away hundreds of miles during the night ; thus when it was opened the sparrows found themselves in country where they had theretofore been unknown. Corn droppings from laden cars also helped in distribution ; the sparrows followed these along the railways and thus by degrees discovered pastures new.

And the sparrow was everywhere welcomed—at first ; boxes in which sparrows might nest were set up ; the Law took them under its wing, making it an offence punishable by fine to kill one. In some states the fine was five dollars ; in others they came near to canonizing the

bird and it cost the slayer of a sparrow twenty-five dollars. And all owing to that mistaken idea that the bird was an indefatigable eater of insects. Be it admitted that sparrows do eat insects when they are unable to get anything else, also give them to the nestlings ; but, as already said, corn forms their staple diet.

Some years elapsed before people in America, agriculturists more particularly, began to doubt the value of the sparrow, especially when it spread with extraordinary rapidity and a single pair raised from four to six broods per annum. Sparrows are sufficiently prolific in this country, but they do not breed at such an immoderate pace as that, and it is not wonderful that the American farmer began to regard them with a jaundiced eye. The rapidity of distribution is shown by the table published in that "Bulletin", thus :—

From 1870 to 1875 the bird spread over 500 square miles, from 1875 to 1880 over 15,640, and from 1880 to 1885 over 500,760.

Not to labour the point, in 1898 the "familiar chirp" might be heard over a range estimated at a million square miles or more—probably more, as the data on which the Canadian figures are based are admitted to be incomplete.

An exhaustive series of inquiries was set on foot by the Bureau of Agriculture ; a *questionnaire* was circulated asking for information and opinions : (1) Was the sparrow harmful (a) to the farming interest ? (b) To the market-gardening industry ? (c) To trees and shrubs ? (2) Did it drive away useful native birds ? A small minority returned answers in the bird's favour ; but the weight of evidence and opinion was dead against him ; and the halcyon days of the sparrow in America were over. His

good qualities were recognized ; he was brave, he was sagacious, he was exemplary in his domestic relations—other birds might desert their young in time of stress, but the sparrow, never. It was unfortunate—for the bird—that his very virtues only aggravated his offences ; his courage was proven by the determination wherewith he expelled useful native species ; his sagacity in (we may suspect the play of imagination here) the discretion which taught him to feed among the poultry so that he couldn't be shot ; and verily when a bird is officially described as “ a curse of such virulence that it ought to be systematically attacked and destroyed before it becomes necessary to deplete the public treasury for the purpose ”, assiduous care of too numerous families cannot be accounted praiseworthy.

Protective measures were dropped ; then a price was set on the head of the once-cherished sparrow—one cent per head for lots of not fewer than twenty-five ; it was made an offence to feed, shelter or encourage him in any way ; nesting-boxes were to come down ; anyone who interfered with or hindered destroyers of sparrows were to be fined—clear indication that he still had some friends ; firearms, traps and poison were advocated ; in a word anything and everything might be done to promote slaughter. Bounties on eggs were considered, but the idea was abandoned ; young America, acting doubtless on private encouragement, had found that if, say, two eggs of a clutch were taken the bird would go on laying up to thirty-five or forty ; a fact that must prove less profitable to the State than to the boy.

I came upon a paragraph in some newspaper wherein it was asserted that Nature, with rare consideration, had stepped in to relieve suffering America ; a “ malarial

parasite", the writer stated, had made its appearance and was sweeping off the sparrow in tens of thousands ; and only the sparrow ; that benevolent parasite did not attack native birds, and native birds were gradually returning to the haunts whence they had been expelled. It seemed too good to be true ; a parasite so discriminating that it killed off one passerine species and did not hurt all the others was a marvel ; particularly when it destroyed the species of which a vast country wished to be rid. Pardonable doubts assailed my mind ; but inasmuch as the writer of that paragraph did not give the source of his information I acted on its face value and wrote to the United States Department of Agriculture for information : When did that parasite appear ? Did it really prove fatal only to sparrows ? Was it as destructive as stated ? Were native birds returning to the terrains whence they had been driven ? The Officer in Charge of the Food Habits Research of the Bureau of Biological Survey answered my letter with the courtesy and promptitude U.S. officials always display. The Research staff had never heard of that parasite. More, they did not believe there had been any great reduction such as might be attributed to a disease. What they did know was that sparrows were by no means as common as they used to be in the large cities ; and that was easily explained by the almost entire elimination of the horse in favour of the motor which drops no food for birds of any kind. For the rest, the sparrow was still common enough in suburban districts and about farm buildings ; it continued to do considerable damage and drive out other birds ; and was still extending its range. So that was that. The paragraphist had invented that parasite ; and America still mourns the day she acquired sparrows.

The United States made experiment with other birds—songbirds, they are called officially—the skylark, blackbird and greenfinch ; though what the last named is doing in such company it is hard to say ; we can only conclude that somebody who did not know the bird was misled by the alternative name of “green linnet”, for his warmest admirer would not claim for the greenfinch the gift of song. It is curious and regrettable that birds whose conduct in England leaves nothing to desire should fall from grace when they are transferred to another land ; so it was with the three above mentioned : the skylark soon displayed an appetite for turnip seed, the greenfinch one for newly sown grain, and the blackbird was “accused” of stealing strawberries. That accusation was well founded ; it was no new sin. Between the blackbird and myself is but one bone of contention, and that is his passion for strawberries ; he will search all round and about the nets for a way in, and when he has found one and eaten his fill (consisting of a bite from numerous berries), he can’t find his way out. And when released he is as abusive as though it were my fault and I had been guilty of unlawfully detaining him. This by the way ; the only thing to be said in favour of those three is that they have not increased to an extent which earns for them the brand of criminality.

The starling was offered American citizenship several times from 1872 but always declined it, dying out unanimously, until 1890 when about eighty birds, released in New York Central Park, found their surroundings satisfactory and settled down ; other consignments of starlings were made thereafter, and the majority of reports say they were doing “remarkably well”. Much was expected of the bird as a foe of noxious insects, but he has

not quite lived up to the character he took with him from Europe: on the contrary, ten years after that colony became established in New York, those who made it their business to keep an eye on his doings felt obliged to report that his behaviour was "not above suspicion, and his usefulness was still open to question". The ornithologists, doubtless, had in mind the record of the starling in New Zealand, and that was not encouraging.

In 1874 an endeavour was made to acclimatize the great tit at Cincinnati, but it failed, and apparently was not repeated; this proceeding was rather gratuitous as America has several tits of her own and hardly needs another.

The story of the starling in New Zealand offers an instructive lesson in the facility with which a bird will change its habits—one might say its nature—in favouring conditions. Somebody, whose name has not been handed down to infamy, imported a few birds in 1867, and the adaptable fowl soon made himself at home. Here again great things were expected of him; in England the starling had earned a name as the staunch friend of the farmer, the sworn foe of leather-jackets, grubs of the daddy-long-legs, and other injurious larvæ and insects. His good name—then—was well deserved; an examination of one hundred and seventy-five crops made by Mr. John Gilmour in 1896 showed that the food consisted of 75 per cent insects, 20 per cent grain, waste for the most part, and 5 per cent other substances. The remains of some useful insects were brought to light, but the majority eaten were harmful. After this revealing examination the starling stood out as first member of the Agricultural Order of Merit.

For a short time the New Zealand farmers and fruit-

growers were able to congratulate themselves on their acquisition ; but ere long doubts arose. The wonderful way in which the climate agreed with starlings seems to have been the original source of those doubts. In 1870, only three years after his arrival, starlings were reported as "very numerous", but the utility of the species was such that in 1896 starlings were accorded legal protection ; none might be killed on pain of fine, and the bird continued to increase, which was not singular, having regard to the change of domestic habit ; in this country the starling raises two broods in the year ; the New Zealand climate and food had such a vivifying effect that five broods per annum became the rule. He continued to eat insects ; but soon revealed a preference for "other substances", namely the fruit he had been imported to protect. His tastes were catholic ; he ate apples, pears, and others such as plums, peaches and figs which he passes by in this country. Change of climate or locality has its effect on the tastes of birds : black currants in Great Britain are disdained by all : in New Zealand this fruit is pillaged by the imported thrush and blackbird. Fruit-growers realized that the starling he had blessed was become a curse of the worst kind. One man stated that starlings ate in half an hour apples enough to fill ten cases ; and a case contains forty to forty-two lbs. We need not accept the word "ate" in its full sense ; when he has plenty of fruit from which to choose the bird takes a few pecks at one apple or pear and if it drops to the ground, as is likely to happen, he passes on to the next and takes a mouthful or two from that ; and a single wound in an apple destroys it for packing uses.

As with the sparrow in America so was it with the starling in New Zealand ; it spread with amazing speed

over the country ; districts where the bird had been unknown were invaded and colonized by thousands within three years ; and, again as in America, the useful native birds were ousted. By 1905 the starling plague had attained dimensions which moved the Agricultural Societies to petition government ; they wanted drastic measures adopted for extermination ; if the numbers were not reduced to reasonable proportions fruit-growers must abandon their industry altogether. The law protecting the starling was repealed, though we may be sure the suffering colonists did not wait for that to do what in them lay towards ridding their lands of the pest.

The truth is that the starling had been introduced into New Zealand before he was found out ; not long ago one met people who denied that starlings ate fruit at all ; that if a bird were seen pecking at apple or pear, that apple or pear concealed a grub which was the legitimate object of the bird's search. I am not prepared to say that starlings did *at first* attack fruit for its own sake ; my belief is that in their probings for grubs they discovered that apples and pears are good to eat and have continued to eat them ever since this pleasing—to them—discovery was made. Even now you may be told that starlings and blackbirds attack juicy fruit only because they are athirst ; that if bowls of water are set about the orchard they will slake their thirst thereat and leave the fruit alone. With the Thames so close at hand it did seem that birds might drink therefrom, but being a docile person I put down numerous bowls and kept them full. The water thus supplied was much appreciated—for bathing ; the starlings and blackbirds ate the fruit as before ; they display no nice preferences ; all they ask is that apple or pear shall be ripe and juicy ; eating and cooking apples are alike to them.

We have only too many starlings here to rob us, and I hold no brief for their defence ; but might not the New Zealand bird have something to say ? There are always two sides to any question :—

We did what we were brought to do
And you were more than satisfied ;
“ Increase and multiply ! ” said you,
“ Starlings should be beatified.”

And so our numbers made advance,
A thousand flew for ten before
Until you looked at us askance,
Asking, “ Will there be many more ? ”

Then shortage grew of lawful meat
And you make all this dreadful fuss
Because the things that we must eat
Are meant for you and not for us.

You brought us here : how grim a tale to tell !
—Caged and confined, exiles, unwilling guests,
Who bowed to Fate and did your bidding well
To be at last condemned as plagues and pests !

Now is to be reviewed the career of the mongoose in Jamaica ; as what may be called a reformed character he is no longer to be classed with “ Natural Enemies ”. The “ canepieces ”, otherwise sugar plantations, were sorely damaged by rats, brown and black ; the latter was the original inhabitant, but this species was displaced by the brown, also known as the Norwegian and Hanoverian rat, which came over from Europe in ships. These vermin were so mischievous that the planters on some estates spent £300 a year in endeavours to destroy them. All efforts failing, Mr. Bancroft Espeut in 1872 had an inspiration. He was acquainted with the mongoose in India

and knew that mongeese (if the convenient inaccuracy may be forgiven) eat rats, snakes and lizards ; here, manifestly, was the very fellow to deal with the superabundant rats. In February of that year Mr. Espeut imported four male and five female mongeese, and turned them out to fend for themselves. The animals thrived ; they killed the rats ; they spread all over the island, even unto the mountain-tops ; and the planters blessed wholeheartedly Mr. Espeut and the mongoose. For at least ten years the beast enjoyed all the privileges of a benefactor ; the decrease in rats was so remarkable that in 1882 it was calculated that their destroyer had saved the sugar industry no less than £45,000 a year. No doubt there were thoughtful souls who asked what the mongeese were going to live on when they had finished the rats ; certainly Jamaica produces lizards and snakes, but were there enough of these to maintain the swelling hordes of this benefactor ? And would the benefactor be content with lizards and snakes ? Jamaica would see.

Jamaica did see. The rat is a very intelligent creature, and finding life on the ground grow perilous it adopted arboreal habits, taking to the trees ; comparative security was also secured by the fact that the mongoose is not out of bed before 9 a.m., and rats, as we all know, are for the most part wrapped in slumber by that time. Under these circumstances the mongoose was obliged to vary his diet ; and he did it, revealing an appetite easily satisfied. He ate snakes and lizards as expected, but it became only too obvious that he liked other meats as well—kids, lambs, young pigs, puppies, kittens, the native coney, chickens, game-birds and any other birds that nest on or near the ground within reach of an active and hungry mongoose. He came near to exterminating the quail, imported from

America, and the little ground dove ; the latter species saved itself by following the example of the rats ; the birds gave up nesting on the ground and resorted to cactus, shrub and tree. Owners of poultry who suffered had recourse to traps, and were gratified to discover that the mongoose is very easy to take. Mr. H. H. Cousins, lately Director of Agriculture in Jamaica, to whom I am indebted for much information concerning the recent history of the animal, tells me that his daughter accounted for sixteen mongeese in a few weeks, using a single cage trap and aided by a bull-terrier. The mongoose was not satisfied with domestic animals and birds ; he ate frogs, turtles' eggs and land crabs ; he acquired vegetarian tastes and ate ripe bananas, pineapples, Indian corn and sweet potatoes among other fruits of the earth not meant for him. Before another ten years had passed the animal was voted the greatest curse with which an undeserving island had ever been afflicted.

In 1890 a Commission was appointed by the Colonial Government to investigate the position and consider whether steps should be taken to reduce the numbers of the animal. Evidence was collected and, as might have been expected, it showed that the introduction of the mongoose had done far more harm than good.


The Trinidad Government endeavoured to exterminate the beast, but all efforts to do this failed. Then Nature stepped in and slowly restored the balance. Ticks for long had been a pest on the cattle in Jamaica ; about twenty-five years ago they attacked the mongoose, causing debilitation ; lowered vitality and impaired reproductive powers brought about reduction in his numbers ; and another factor operating in the same direction was the decrease in acceptable foods. The mongoose was

compelled to make a change in his diet. Examination of stomachs made during two years by Mr. S. Lockett of the Department of Agriculture, disclosed the fact that the food of the mongoose chiefly consisted of insects, beetles, caterpillars, &c.

Mr. Cousins says he " regards the mongoose as having played a very successful part in freeing the sugar-cane fields from the rat pest in Jamaica, and that the benefit to the industry would be about £40,000 per annum ". If two or three species of birds have disappeared through his instrumentality, he has on the other hand exterminated the black and yellow snakes.


Let not the case of the mongoose in Jamaica, however, be held to qualify the truth that it is unwise to introduce animals and birds into countries where Nature has not put them. We are slow to profit by the misfortunes of other people, but have had lessons read ourselves, first in the grey squirrel, then in the musk rat. For the experiment made with the latter there is no excuse in the face of happenings in Bohemia ; from two bucks and three does imported into that country in 1905 has sprung a population estimated in 1927 to amount to 100 millions. An animal or bird may be harmless, even beneficial in its native land, but as a settler elsewhere it becomes an intolerable nuisance.

P.S.—The statement on page 159 that black currants are disdained by all birds in this country must be qualified ; a hen blackbird has just been seen plundering them ; possibly because at this time, July, in a year of drought there is no other fruit to steal.



CHAPTER TEN

Cats as foes of rabbits. Heredity of domestic cat. Feral cats. *Felis catus*. Methods of nursing vixen. Stoat and weasel in New Zealand. The stoat a climber. Seasonal change of coat. Polecat. Weasel the foe of rat and mole. Care for dead fellow. Attacks on men. Starlings' autumn manœuvres. Tendency to fly east.



CHAPTER TEN

REFERENCE to the allies enlisted by the New Zealanders in their war against the rabbit invites attention to those allies—cat, stoat, polecat and weasel. A case could be made out for importing the first named : Sable Island, off the coast of Nova Scotia, had been overrun with rabbits since the year 1830 ; cats were introduced about 1880, and within very few years they had exterminated the rabbits ; whether they exterminated anything else history omits to tell us, but their victory over the foe they were imported to deal with was beyond question. Without that encouraging example, cats were desirable ; it is common knowledge that they have a passion for rabbit-hunting, and take readily to a wild life.

The latter fact is one which has compelled inquiry in the ancestry of the domestic cat : is she derived from the Wild Cat (hereinafter for the sake of distinction called *Felis catus*), from the sacred cat of Egypt or some other source ? That good naturalist Thomas Bell doubted her descent from the former ; but there are facts which lend colour to the belief held by others that *F. catus* is the remote progenitor of the house cat. Nicolas Cox in his *Gentleman's Recreation* (first edition, 1674 : not to be confused with Richard Blome's work of the same name published in 1688) says, " there are so many warrens everywhere throughout the Kingdom of England which are very much infested by the Wild Cat ". But were these

true members of the race of *F. catus*, or feral cats—cats which had turned their backs on the comforts of home and adopted a wild life? It is impossible to say; but there is at least the possibility that Cox does mean *F. catus*. There is later, and, insofar as identity of species is concerned, more reliable evidence; the Rev. H. A. Macpherson points to historical proof of the existence of *F. catus*, or the true Wild Cat in the Lake District as late as 1754; such proof consisting of entries in parish books of sums paid for its destruction. Again, the Rev. William Gilpin, brother of the animal painter, describing a tour made in 1772, says that the mountains round Helvellyn “and indeed many other parts of the country are frequented by the Wild Cat which Mr. Pennant calls the British tiger and says it is the fiercest and most destructive beast we have”. The animal lingered in steadily decreasing numbers in the Cumberland mountains until 1843, when, says the late Richard Lydekker in the *Handbook of British Mammals*, the last authenticated specimen was killed near Loweswater. A few have been killed since, but these were held to be feral cats.

The difficulty of identification lies in the likeness the latter develops to *F. catus* after a few generations; and in that likeness the believers in wild ancestry find the strength of their theory. We all know how readily the house cat throws off the ties of domesticity and takes to the wilds; but perhaps we all do not know that the descendants of such a cat undergo changes which suggest relationship to *F. catus*. Dr. E. Hamilton in his *Mono-graph* draws attention to these: after two or three generations the feral cat assumes the colour of *F. catus*, whatever that of the runaway may have been; less important as evidence is the fact that the long intestine of the house

cat assumes in a few generations the shorter form that distinguishes *F. catus*; this is what might be expected; the domestic cat does not live on meat only; *F. catus* does; and so must that abjurer of home comforts when it has to cater for itself; which accounts for development of that anatomical difference. So also the greater length of limb developed by the more active life of the feral cat, which brings it nearer to *F. catus*. The change of colour seems to be the strongest argument in favour of descent from the wild species; the untameable nature of descendants of the feral cat is another. *The United States Year-Book of Agriculture* for 1898 contains an essay which throws light on this point; says the writer:—

“In one of the harbours of Kerguelen Island, off the south-east of the Cape of Good Hope cats were allowed to run wild upon a little islet known as Cat Island, which has been used as a wintering place for sealers for many years. Here the cats live in holes in the ground, preying upon seabirds and their young, and they are said to have developed such ferocity that it is almost impossible to tame them even when captured young.”

Good proof this of the thoroughness with which the domestic animal reverts to the truly wild state; also a tolerably convincing argument against the theory of domestication of *F. catus*; taking due account of the qualifying “almost” in that passage, it does seem unlikely that our ancestors caught kittens and reduced them to such domesticity as a cat permits.

Many naturalists hold that the true *F. catus* has been long extinct and that the animal now so called is simply a feral cat. Perhaps the truth lies betwixt and between,

and the Wild Cats we now possess are a cross between the two. Whatever it be the beast is increasing : in 1926 the late Commander J. G. Millais traced 43 specimens in the hands of taxidermists and gamekeepers, *vide* the article contributed by him to *The Times* of 25th October of that year ; and as some of these were kittens it would appear that there is no danger of the species dying out ; this, thanks to those landed proprietors in Scotland who deem it worth while to preserve an interesting animal even at the cost of some game. Spared by man, the only foe the cat has to fear is the golden eagle, which bird has peculiar liking for cat meat. Commander Millais in his article gives an account of a scene witnessed by Mr. John Ramsden, a friend and the former's stalker : the three were walking over the hills near Loch Ballich when they saw a golden eagle attacking a wild cat as it basked on a rock, the bird made no fewer than thirty swoops, but every time it extended its feet to seize, the cat sprang up and fought with claw and tooth. In the event the bird gave up hope of making a meal off that cat, abandoned the enterprise and flew away. Captive eagles display marked preference for cats' flesh ; therefore it is highly probable that wild kittens fall victims to the bird.

The dislike, even dread, of the cat from which some people suffer is no new thing to be ascribed to an over-developed nervous system as we may hear suggested. It is an old story :—a seventeenth-century naturalist says, " the dislike of some to cats is due to the fact that they are apt to poison a man with very looking upon him. Hence their natural dislike and abhorrence of cats and their instinctive knowledge of a cat's presence, though unseen ". Which you will truly say has nothing to do with the subject in hand.

There is no record of the number of cats imported by New Zealand in her campaign against the rabbit ; advertisements in the English papers invited offers of young ones for export, but what response these received is unknown. Stoats and weasels are animals for which money must be paid, hence it is on record that in 1885 no fewer than 3,000 of these were sent out from Lincolnshire alone.

No doubt the stoat did his share of rabbit slaughter, but unfortunately he slaughtered many other creatures besides ; birds of various kinds the size of the domestic fowl, also he ate eggs of any kind ; ground builders of course suffered most, but birds who nest in trees are not safe from the stoat, who is an accomplished climber ; he will run up a tree like a squirrel, and I once saw what appeared to be a " hob ", or male, run up a rough stone wall ten feet high ; he thought it time to move when I came within a dozen paces of him crouching in the middle of the road, and though on the other side there was a four-foot wall with a dense shrubbery behind it he preferred to escape up the high one. Gifted with this climbing talent some stoats make their abodes in trees ; there is at least one recorded case of the " jill " establishing her nursery in an old bird's nest, and the animal often elects to bestow quarry, whole or partly eaten, in a tree. He devours small eggs and young birds where he finds them, but has the habit of gathering large eggs for future consumption. In May 1894 Mr. de Winton brought to light 42 pheasants' eggs from a stoat's hole. These must have been garnered in the spirit of the collector, for there could have been no lack of food in variety at that season. Needless to say the animal does not *carry* the egg of pheasant or fowl ; his method is the same as the rat's—

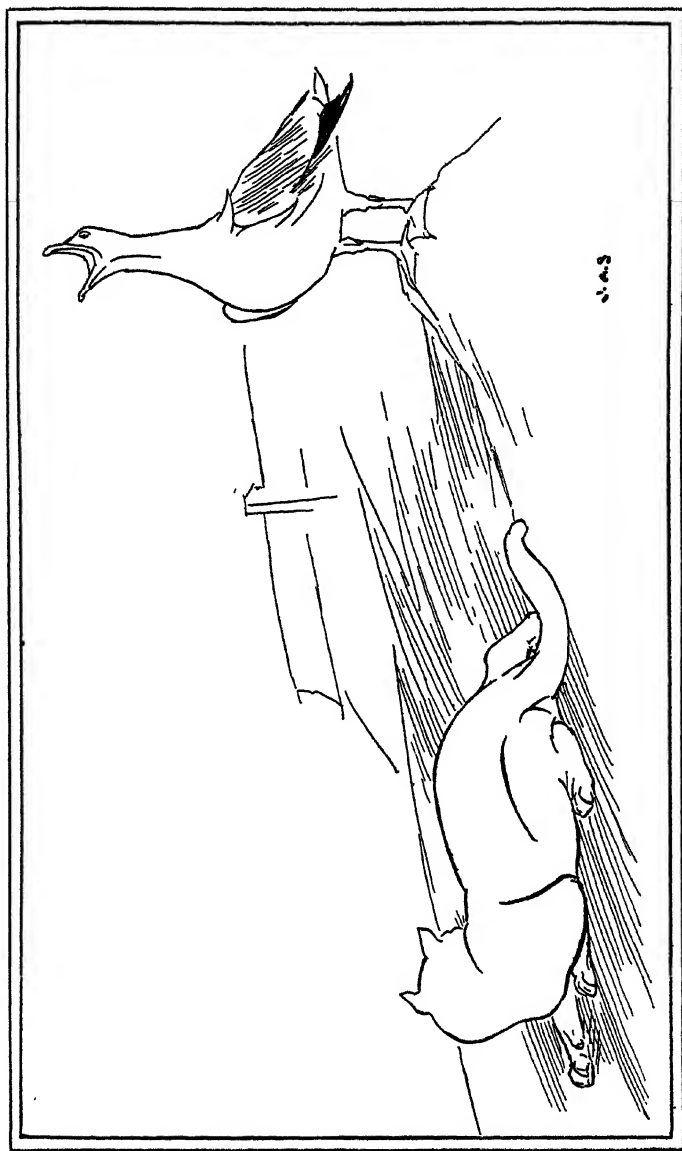
shuffling backwards and scrambling the egg after him with the forepaws.

The change of coat, whereby the stoat becomes an "ermine", is a matter that cannot be reduced to rule. In the south-west of Ireland, in the lowlands at all events, they do not change colour at all, wearing their brown coats all the year round; on the other hand, Messrs. Harvie Brown and Buckley say the stoats on the top of Ben Nevis are to be seen in white all the year round. Climate, it is true, has something to do with it, but there is no accounting for the way stoats in some parts of the country dress in winter.

When dealing with this subject in 1912 I had a very interesting letter from Mr. H. C. Hudson the Ipswich naturalist and taxidermist; he noted that the winter of 1911-12 had been mild; there was very little snow. My informant could speak only for East Anglia, particularly Suffolk and there, he said, the stoats had turned white that winter; he had had white ones brought him when April was advanced; and said the beasts might retain the white coat until the middle of May. He added a curious fact relating to several white stoats, or white ones with brown eyebrows, which came into his hands during that winter and spring—all, without exception, were females; he could suggest no explanation of the absence of hobs; could only state the fact.

The stoat is a brave little beast, generally speaking, but there are occasions when his heart may fail him; he has been seen in ignominious flight from a doe rabbit, before whom, no doubt, he had been performing those clown-like antics by which his kind seek to lure a victim within reach.

Let us not be hard upon such a stoat; other animals



THE CAT SLUNK AWAY, TERRIFIED

are daunted by the unexpected ; a foxhound, young, but old enough to show pluck, was seen to run at a gander with hostile intent ; he had hunted ducks with satisfaction to himself, and no doubt thought the big bird would fly before him and make that delightful splashing in the pond. But the gander was of stouter mettle ; he stood his ground, stuck out his head and spake ; and that young foxhound tucked in his stern, turned and trotted away. His retreat was orderly and that is the best that can be said for it. I once owned a very young herring gull, caught on the beach at Nairn, and when the bird recovered from the injury, whatever it was, that had enabled me to catch him he took his pleasure in the garden. It had been feared that the cat would soon make an end of him if left at large, but the gull soon relieved us of anxiety on that score ; upon a day very soon after his arrival, she marked him stalking along a path and after scrutiny decided that here was worthy game. She crept forward a few paces and after the usual preliminary wriggle made her rush ; to stop abruptly within a foot of the victim, stare horror-stricken, turn and bolt. To a cat the aspect of that gull was awe-inspiring ; he stood up at the full stretch of his legs, partly spread his wings, opened his beak to its widest and uttered a loud and raucous screech ; it did not occur to him to fly or run, and when the cat turned tail he sank slowly down on his breast in mid-path and followed her with a baleful eye.

We return to the stoat ; the little beast has been seen cutting his curious capers when no rabbit was near to account for them ; he may have been doing it in sheer lightness of heart, or practising. Where game is not preserved and keepers with guns and traps are not, the

stoat loses much of his fear of man ; in Ireland I have known one perch on the step of the wall we were about to climb over on our round of the links, and watch with indulgent interest a lady trying to hole her ball within a dozen yards of him ; at least that was the impression he left on my mind.

I cannot count the polecat among personal acquaintances. Remorsely harried by the gamekeeper (to whom small blame), the animal is become rare ; moreover, while the stoat walks abroad by day the polecat lies quiet until evening and sets forth on his roamings at night. Bigger and stronger than the stoat he does the more mischief, opportunity serving ; his prey is that of the other, gamebirds, poultry and their eggs, rabbits, rats and mice ; he varies his diet with fish, some individuals at all events showing a preference for eels, for which, so far as is known, the stoat has no taste, though being as good a swimmer as the polecat he might so indulge himself if he pleased. Mr. Trevor Battye says that the polecat in captivity " shows a great fondness for water, and will not hesitate to plunge in and pick up food from the bottom of a bath ". Miss Frances Pitt found that the polecats she kept would eat frogs readily, but did not like toads. No animal except the water rat, nor bird for that matter, does like toads. On occasion, with some purpose best known to themselves, polecats were numerous, as in the hilly districts of Wales, assemble in small parties ; then they may be dangerous, prone to attack man or dog if either interfere with them.

Needless to add that the ferret is only an albino polecat tamed and disciplined to serve the man who shoots rabbits and him who would decimate rats ; a polecat caught wild and tamed as far as may be, is said to be

better at either pursuit than the ferret ; but he requires very careful handling.

The weasel was perhaps hardly worth importing unless New Zealand was suffering as much from rats, mice and moles as from rabbits ; for this little beast, smallest of his kind, devotes himself more to the destruction of these than of rabbits, though doubtless he takes a young rabbit when he can ; for which reason he deserves well at the hands of the agricultural interest, much as the game-keeper dislikes him. Thin and lithe, he can find his way into the burrow of rat or mole ; and rat or mole has a poor chance once a weasel is on the premises. Like the stoat he is an excellent climber, and eats the eggs or young birds in the nest. In other respects he resembles his cousin, but is more playful and, taken in early youth, easily tamed ; when those who know say he makes a most entertaining pet. He has one curious habit, if habit it may be called : shoot one of a party of weasels and a survivor, recking naught of danger, will come and carry his dead fellow away. This proceeding has often been observed, but nobody has yet suggested an explanation of it, unless it be that the rescuer believes the defunct to be merely wounded, and seeks to save him. A parent will thus carry off and hide a dead young one, which is comprehensible ; but why one adult weasel should be at the pains, at palpable risk to himself, to carry off from under the nose of the destroyer another adult is one of the many puzzles of Natural History.

There have been cases of weasels behaving differently : a man shot and wounded one, when, instead of a single relative trying to rescue it, a number appeared and attacked the man so fiercely that he had to run ; and would have fared badly had it not been that the affair happened near

a river and there was at hand a ferry by which he crossed into safety. The courage of the weasel is proverbial ; an eloquent example was reported from Kirkby Lonsdale to the *Field* in 1864 (the beasts were more common sixty years ago than they are now, and we have to seek information on the subject in past records). An angler, irritated by a weasel who came and chattered at him (it may be suspected that the trout would not rise and after a blank day his temper was ruffled) struck it, or at it, with his rod, breaking the top. While he was repairing the damage a crowd of weasels appeared and boldly attacked him ; he would have been badly mauled, but by good luck a carrier who had with him a bulldog chanced to pass, and the dog, set upon the weasels by his owner, put them to flight. That dog was a sturdy fighter ; cases of weasels attacking dogs and getting the best of it are known.

Our forefathers turned the weasel to strange account. Mr. William Lawson, whose work on gardening was published in 1618, advises those who suffer from the depredations of field mice, to catch a weasel, burn it to ashes and scatter those on the beds to be protected ; this done, no mouse would come near. Not having tried this mode of defence from the short-tailed field mouse, of which we have too many, I will not venture to criticize it ; but am of opinion that a live weasel would be more helpful.

Of the starling there is nothing to tell that is not known to everybody. The only time one feels indulgent towards that bird is in autumn and winter when, having spent the daylight hours in small parties of from six to a dozen, feeding, he assembles in vast flocks and delights us with those aerial manœuvres before going to roost. This habit of gathering in large numbers, followed by the lapwing, skylark and other birds, has, it may be sug-

gested, a matrimonial purpose, among others more obscure :—

When autumn comes the call will come that we old starlings know ;
The call to gather in our might and make that wondrous show
Of birds in thousands trained to move as one in upper air.
Sweep right ! Swing left ! Soar high ! Stoop low ! Let him
fall out who dare !

You hear the windy rush of wings, you see the wheeling cloud,
No word is said, no hint conveyed, a sign is not allowed.
Each bird does what he has to do, merged in that countless throng
In silence—rare indeed with us who can't stay silent long !

But mind ! I would not have you think manœuvres grand are all ;
This meeting on a splendid scale is like the human's ball,
Young hens will meet agreeable cocks, and cocks attractive hens,
And so there will be Goings On, to use a phrase of men's.

I shall not say you mustn't flirt, because I know you will.
I'll only bid you not be rash. Don't get engaged until
You think you rather like the bird ; are pleased to have him near,
And could at least put up with him till you divorce next year.

For me, your mother ? Oh, it's not too late
To seek another temporary mate.

And when we regard those lists of Decrees Made Absolute in *The Times* every week, the advantage of the starling social system becomes apparent. But whether that autumn evening gathering be their matrimonial mart, as I assume, or not, the evolutions of such vast numbers of birds actuated by a single will form one of the most wonderful and beautiful sights of the bird world.

In a former chapter mention was made of the herons' tendency to fly west ; the starlings' tendency is the opposite. From the same source of information we learn that out of over a hundred ringed eleven were retaken, and all at places *east* of those where they were released. Seven were caught in England, but four went farther


afield, being retaken in Friesland, East Friesland, Finland and Pomerania respectively ; these four, all adult birds, were no doubt winter visitors to this country, and simply went home ; but why should British-bred starlings with one consent fly eastward ?





CHAPTER ELEVEN

Nightingale *v.* thrush. Snails. Intelligence of slug—of tortoise. The toad. Evening visits of. Tastes of. Toad and witch. The toadstone. Frog. The “Good People” in Ireland. Animal cures in early medicine.



CHAPTER ELEVEN

IS there rivalry among song-birds? When a nightingale took up his position a few yards from my bedroom window I lay awake and lent ear to him, particularly in the morning dusk when he seemed to sing his best. When the sun was about to rise a thrush perched hard by that nightingale and sang for all he was worth; and the two of them sang together, or at each other, till the sparrows began to chirp, when the nightingale relapsed into silence, disdainful, as it seemed, of such accompaniment to his melody. Then the thrush would stop too, evidently thinking he had sung the other fellow down, and go to breakfast. We do not hear the nightingale in the daylight hours save after dawn; he must relieve his little chest of the song that has perforce been pent up within him during his flight from the south, and he pours it out in the first few days after landing on our shores; Berkshire forms a later stage in his journey and by the time he reaches these parts he has reverted to orthodox nightingale hours.

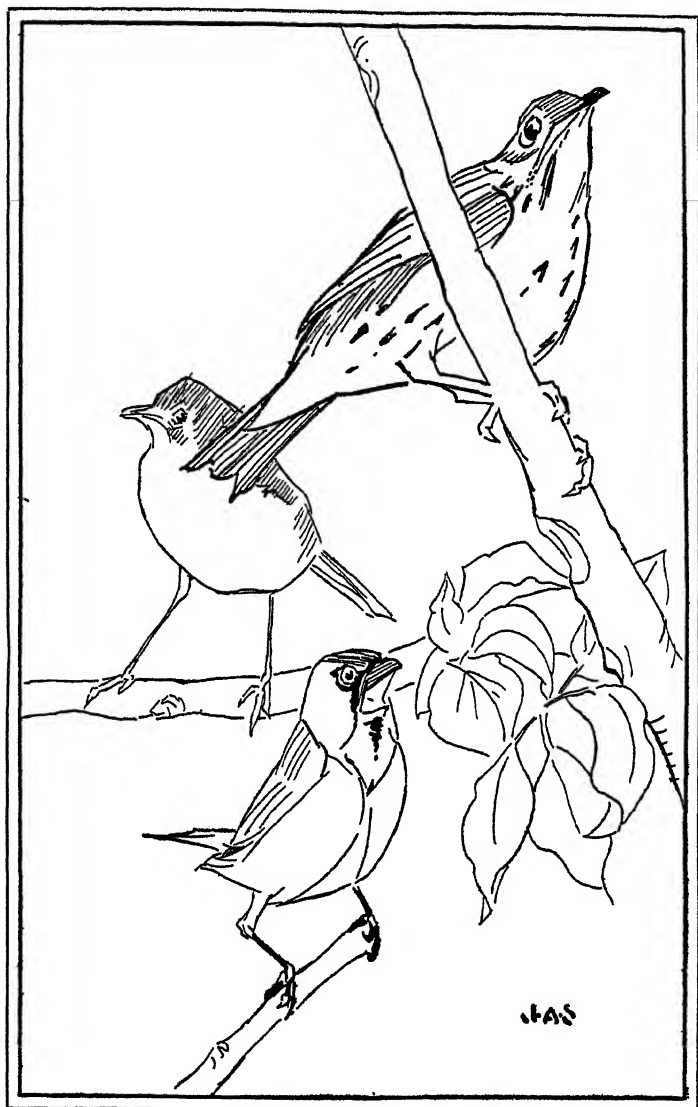
Thrush and robin are the earliest morning singers and the latest in the evening; for the blackcap is not to be counted, a singer he of the night who continues after dawn. It is curious the certainty with which a bell wakes the thrush; when we lived in London there dwelt in a neighbouring garden one who raised his voice while the church clock at the end of the road was still striking four;

it was clear that the bell, if it did not actually wake him, moved him to sing. The robins took no notice of that bell ; they tuned up quarter of an hour or so later.

I am not unappreciative of bird music, but that Song before Sunrise inspires the wish that the thrushes would devote less time to melody and more to snails. We were overrun with snails last spring ; the birds devoured quantities, but not enough ; and they were careless, leaving paths and flowerbeds littered with broken shells ; the paths being bordered with rough stones to serve as anvils ; they smashed their victims where they found them. Not every snail gives up its life easily, as witness the state of wreckage to which some shells were reduced.

Enforced acquaintance with the mollusc engenders a measure of respect for its intelligence ; a snail has more discernment than might be supposed ; thus, it has an abiding love for the foliage of laburnum, and knows the difference between that and the lilac which it ignores ; we have laburnums and lilacs in a row alternately, so the preference is the more obvious. The only thing that can guide the snail in its choice is the texture of the bark ; that of the laburnum is smoother ; it is also darker, but it is doubtful whether a snail has a good eye for colour. It cannot be the foliage, for there is not a leaf within four feet of the ground on any one of the trees, laburnum or lilac. However they know how to choose, and make their way high up to the thinnest twigs, giving work daily with the longest rake ; they would play havoc with leaf and bud if suffered to remain ; snails have healthy appetites.

Slugs appear to be even more discerning than snails as proved by Dr. Bruce Dobell's account of slug doings some years ago. It was this gentleman's practice to put out crumbs, night and morning, on the sill of a window



UNSEEMLY INTERRUPTION OF MUSICIANS AT DAWN

for the birds, which carried off all but the smallest. One morning Dr. Dobell noticed the betraying trail of slug or snail about the spot where the crumbs had been, and saw that all the birds had left were gone. What struck him as remarkable was that the trail led straight to the crumbs without deviation, showing that the visitor knew exactly where to go. Dr. Dobell watched, and just before dark saw a large brown slug come direct to the crumbs and eat. On the second evening that slug brought a smaller friend who shared the feast. Then the doctor carefully washed out the silvery trail, thinking thus to baffle the slug; but the creature was not at a loss; it came up again and ate crumbs as before; and so continued its visits nightly throughout July and August. Once it made a mistake, going to the wrong window; and not finding there the food it expected, retired; to find its way to the right window-sill a night or two later. Now, if that brown slug discovered the crumbs by chance which, from the doctor's account seems unlikely, we must grant it sense of direction and a memory; these faculties were obviously used. That slugs like breadcrumbs is probably news to most people—few of us care to cultivate their acquaintance and study their tastes—but that point is of minor interest.

Intelligence may lurk in a head that is the least promising; we do not expect much sense from a tortoise, but some individuals, at least, display reasoning power. A friend described the performance of one under her eyes; it gazed up at a shabby old wallflower, then deliberately raised itself on one edge of its shell and leaned against the stalk, sidling until the plant lay flat; then it proceeded to eat the fading blossoms. The lady felt tempted to try and teach that tortoise to beg.

It cannot be intelligence that brings the toad ("the most noble kind of frog", Topsell calls it) into the drawing-room at night; visits from toads when the lights are on are frequent; they climb the four-inch-high step to the French window and crawl over the carpet—not in search of insect food, for they take no notice of the thronging moths, large and small; nor is it the light, for, opening the garden door after dark, I have more than once found a toad on the sill waiting to come in; and he comes in; to be tenderly helped out again with the coal-scoop. The suggestion that toads feel the lack of friends and seek to endear themselves to us by these visits must be dismissed.

Toads in the garden are many; and this is as we would have it, for they render good service as consumers of insects, also worms; Mr. Shepherd once saw a spirited tug-of-war between a toad and a young moorhen, a worm doing duty as rope. One who should know says toads are prone to eat tomatoes; and ripe strawberries have been found with wounds corresponding to the shape of the toad's mouth. The latter may bear witness to an attempt to seize some insect on the fruit when a mouthful might be bitten out; it seems unlikely that toads care for strawberries. Useful though he be, strictly as we enjoin the gardener to be kind to toads, that gardener regards them with gloomy suspicion. This may be attributed to atavism; time was when toads were in such close league with witches that people feared them; besides, the Devil was wont to take the shape of a Big Black Toad; and in that shape, if you took the appropriate measures, would confer upon you the powers of a witch. In the improbable event of your wishing to achieve witch-hood proceed

thus :—Go to Communion and keep the consecrated bread ; with this in your mouth go at midnight to the churchyard and walk three times round the church repeating the Lord's Prayer backwards. Then you will—ought to—see a Big Black Toad to which you present the bread. That toad is the Devil, and in return for your renunciation of Christianity, symbolised by your previous performance, he will bestow upon you infernal powers as his own servant. What you do if the Toad fails to turn up authority sayeth not ; but I suppose you would go home to bed. I fancy disappointments were frequent.

The toad played a prominent part in the case of that Suffolk witch, Widow Amy Duny of St. Edmunds, when she was tried by Sir Matthew Hale in 1665. The trial is notable, as being that at which Dr. (afterwards Sir Thomas) Browne testified to his belief in witchcraft ; and Dr. Thomas Browne was ahead of his contemporaries in many important respects.

The prisoner stood charged with bewitching, among others, the three children of Mrs. Durent. Some offence had been given Amy Duny by Mrs. Durent, and the former revenged herself in the, then, approved fashion of witches ; she cast spells which made those three children ill ; they were deaf, blind and lame by turns ; also, most convincing proof that they had been bewitched, they coughed up crooked pins. It was the clearest of cases—to a seventeenth-century judge and jury. Full proof of Amy Duny's guilt was forthcoming ; Dr. Jacobs of Yarmouth, an expert in these matters, had been called in to prescribe, and he advised Mrs. Durent to hang in the chimney corner the blanket in which the children had slept, to leave it there all day and when she took it down at bedtime, shake it and throw whatever fell out of the

folds into the fire; and do that last instantly. Dr. Jacobs did not say what would fall out of the blanket, and Mrs. Durent, impressed and frightened by his reticence, took the precaution of having on the spot a young man to help at the critical moment. She took down the blanket, shook it as ordered, and behold! there fell on the floor a large toad! The courageous young man caught it up with the tongs he held ready and thrust it into the fire; and "as soon as it was in the fire it made a great and terrible noise, and after a space there was a flashing in the fire like gunpowder, making a noise like the discharge of a pistol; and thereupon the toad was no more seen nor heard".

The guilt of Amy Duny was made manifest next day. Hearing that she was ill, Mrs. Durent went to inquire; which was kind of her after what she now must have known; she found the woman with scarce a rag on her body, so sorely had she been burned. We moderns can only marvel that there was anything of her left after so much explosion; but we must follow the chronicler. The much-burned evil-doer admitted her guilt—she could hardly hope to deny it with any success—and so was brought to trial. Verdict, "Guilty": Sentence, Hang seven days thence. For full particulars *see* Stephens' *State Trials*. *Why* were there no writers of novels in those days when the gift for fiction was so general?

Despite the abhorrence of man for toad, man found a use for it; the batrachian had, *vide* Shakespeare, a precious jewel in his head, the Toadstone or Crapaudina, which was greatly valued. According to Dr. Bell, who wrote in 1569, this priceless gem was found in the head of "olde and grete todes, and usuallie in that of the hee tode". A toadstone was a sovereign remedy for the

stone, but its real worth lay in its mysterious faculty for repelling poison. This made it invaluable in countries where poisoning one's neighbour was the fashion ; as in Italy where, by the way, its virtue was first revealed ; but everywhere a *crapaudina* was a cherished possession. Science, which turns a cold shoulder on the picturesque, has declared that the toadstone is really the fossil tooth of a fish. It might be likened to an ivory shirt-stud.

Nevertheless, the beast has a precious jewel in his head ; his eye, which is the more beautiful by reason of its drab surrounding. If he were less useful in the garden than he is I would for the sake of his eye cherish him—at a respectful distance. I do not like handling toads.

The sages dead thought in my head
Lurked a gem no gold could buy ;
And oft a trick to make me sick,
And produce it would they try

An odd mistake did sages make
Believing that gem to lie
Within my skull ! They were too dull
To see it was just my eye.

One trick was to set the toad on a red cloth and sit up all night with him ; then, if the treasure was in his possession, he would vomit it up before morning ; which indicates some confusion on the part of the patient sage concerning head and stomach.

Being very valuable these toadstones commanded a high price, with the inevitable result that spurious specimens came into the market ; therefore before buying it was advisable to put the thing to the infallible test prescribed by Thomas Lupton in his book *A Thousand*

Notable Things of Sundry Sortes (1579) :—" Hold it before a tode that he may see it ; and if it be a ryghte and true stone the tode will leape towards it and make as tho' he woulde snatch it. He envieth soe much that man shoulde have that stone." If it were not a ryghte and true stone the tode would let the man keep it.

In Ireland the frog enjoys (the word is used advisedly) the sinister reputation that attached to the toad in England. It is better not to meddle with him ; not to try how far he can jump, for it might irritate him. That which looks like a common frog may be No Right Thing, and grave consequences would follow. You never know ; in an Elizabethan atmosphere care is indicated ; the fairies, or Good People, are always around, and if they see you anything may happen. Bear with a brief digression :—A friend at Castletownshend had reason one autumn night to fear the frost which would injure the plants in his greenhouse ; so he went forth and set therein a few little lamps. Next morning Mrs. X— visiting the greenhouse to see how those plants fared, noticed that the window of the maids' bedroom which could be seen from the green-house was closely covered with old newspapers ; she enjoyed the confidence of her servants and made 'inquiry ; to learn that the Good People had been in that greenhouse last night, so the window had been covered to prevent Them looking in. If They do not see you safety is assured. The lamps Mr. X— had put there had green shades ; and green is the colour approved of the Good People. It was manifest therefore to Bridget and Mary that They had paid the place a visit last night.

Returning to the toad which played many parts in mediæval times ; it was useful in cases of cancer, which

was believed to follow the bite of a pig. The leech prescribed a living toad to be worn against the part affected, that it should "suck out the poison". A cure for scrofula was to wear round the neck next the skin a leg which had been cut from a living toad; if the patient felt it twitching he might feel sure of recovery.

The frog had its place in early medicine too. Aubrey quotes an Experienced Midwife as his authority for the assertion that stomatitis, otherwise thrush, was amenable to frog-treatment:—"if you take a live frog and hold it, in a cloth so that it does not go down, in the child's mouth till it is dead, and then take another frog and do the same", recovery would follow. It might be expected that the child would choke first. Perhaps it did sometimes, but the person who administered the frog could assign the fatality to the disease, not the cure.

Whooping cough seems to have been very prevalent in old days if we may judge by the numerous "remedies" employed; a ride on a bear was a sure preventive. Bear-baiting was a favourite amusement, and men made a livelihood by travelling the country with a bear which was chained up and baited by any dog whose owner cared to pay a small sum for the privilege; thus the unfortunate animals were continually on the road, passing from fair to fair, their principal purpose varied by officiating as guardians against whooping cough. Sheep were accredited with healing powers applicable to whooping cough among other maladies; the patient was taken into the fields at sunrise before the flock rose upon their feet; a sheep was made to get up and the child laid on the warm dry spot thus vacated. The consumptive subject was advised to spend his days walking among sheep; an exercise for which there is something to be said, having

regard to the benefits of fresh air, but the ovine atmosphere was held the cure. Fried mouse was a very usual cure for whooping cough, and the efficacy of the treatment depended on the wretched creature being cooked alive. Belief in this cure survived in England until twenty years ago, and may survive still ; it was in the tens of the present century that a man whose business brought him much in contact with the country-folk in Essex and Hertfordshire told me it was still employed, though in a less reprehensible shape, the mouse being killed, beheaded and cleaned, then cooked in a pasty. My informant had often seen children eating such pasties.

Another cure for whooping cough or other chest complaint, much approved on the coasts and by estuaries where flat fish were procurable, was to lay on the patient's chest a living flounder which was allowed to remain flapping on the naked skin till it died.


"A hair of the dog that bit you", though another significance now attaches thereto, seems to have its origin in an ancient belief—one that was still prevalent in the Midlands until within living memory. It was in 1872 that the justices of a Lancashire town had to deal with a charge of assault arising out of this lingering faith :—A woman whose child had been bitten by a dog demanded some of its hair to apply to the wound, and being refused, struck the owner, who summoned her. Beside this example of credulity confidence in the milk of a red cow which has been fed in the churchyard as a cure for consumption appears quite reasonable.

Prominent among animal healers was the ass, for reasons easy to understand. Superstition held him beyond the power of the Evil Eye, without the scope of witchcraft, proof against the lesser naughtiness of fairy ; for

that he wears upon his back and shoulders those Cross stripes bestowed, saith tradition, to commemorate the service rendered Christ in carrying him into Jerusalem. When a child had mumps, whooping cough, measles or teething convulsions it was taken to the ass, as to the doctor ; and held mouth to mouth with him to inhale his breath, and afterwards passed thrice over his back and under his belly ; or the patient might be set astride his withers, where the black stripes cross and led three times round a sign-post at cross roads—or should it not be written Cross roads ? Another treatment was to give the child the crumbs of bread caught from the donkey's lips as he ate. Scarlet fever was to be cured by the " transference " method ; a little hair was cut from the patient's head, mixed with hay and given to the ass ; whereby he took over the disease, to the relief of the patient and without inconvenience to himself.


And when we consider the state of medicine in those old days perhaps the sick entrusted to toad, sheep, flounder, ass and other creatures did quite as well as they might have done under the care of the village leech.

At least one quaint idea involving an animal cure survived until our own time : at the inquest held upon a poor woman, dweller in Spitalfields, on 5th August 1903, the widower said they had lived and slept in a room where they kept a number of rabbits ; he had been told that this was a cure for the rheumatism from which the deceased woman suffered.



CHAPTER TWELVE

Ruff and reeve. Mr. Wolley on, in Lapland. Spoonbill
and avocet. Bittern. Great bustard. Kite. Hoopoe.
Former plenty of birds of prey. Bird protection.



CHAPTER TWELVE

MENTION of the ruff on a former page provokes the reflection that we have lost some of our most interesting birds. The ruff and his mate, the reeve, were regular summer visitors aforesaid; always very local, their favourite haunts were the Cambridgeshire fens, Lincolnshire, the Isle of Ely and the East Riding of Yorkshire: Selby traced the bird to Prestwick Carr, near Newcastle-on-Tyne, which he believed to be its northern limit; but Dr. Henry Saxby, in his *Birds of Shetland* (1874), says the ruff "appeared to be far from uncommon in Orkney where flocks of considerable size might be seen in autumn." It is strange that ruffs should not have been observed between Prestwick Carr and Orkney; furnished as he is with that curious parasol-like feathering of the neck he could hardly fail to attract attention. An odd thing about that feather ruff, from which the species derives its trivial name, is its variable colour; there is no uniformity; it may be black, rich chestnut, fawn, mottled grey or black and white; it is as though each individual male had studied the shop windows and chosen the boa he thought most becoming; a proceeding better left to the reeve to whom has been denied any such adornment at all.

As with some other migrants the ruffs arrive—or, unhappily, it must be said, arrived—on our shores in advance of the reeves; then, says Montagu, "they resort

to one particular spot which is trod bare by their traversing. On these spots, well known to the fowler great numbers are taken, chiefly males which are fattened for the table," under the conditions already described. The cocks seem to have been peaceable enough until the reeves appeared on the scene when they started fighting, and they fought like gamecocks. The fight was preliminary to courtship; and when a bird had vanquished his foe his demeanour underwent a change; he became the meekest of suppliants for the hand of the chosen reeve. Hear what was said about him in Hewitson's *British Oology* by Mr. Wolley who had studied ruffs and reeves in Lapland, where the birds still find congenial breeding-grounds :—

“ Like other fine gentlemen the ruff takes much more trouble with his courtship than with his duties as a husband. While the reeves are sitting on their eggs scattered about the swamps he is to be seen far away, flitting about in flocks, and on the ground, dancing and sparring with his companions. Before they are confined to their nests it is wonderful with what devotion the females are attended by their gay followers, each of whom seems to be trying to be more attentive than the rest. Nothing can be more expressive of humility and ardent love than some of the actions of the ruff. He throws himself prostrate on the ground with every feather on his body standing up and quivering; but he seems as if he were afraid of coming too near his mistress. If she flies off he starts up in an instant to arrive before her at the next place of alighting, and all his actions are full of life and spirit.”

The bird has not quite deserted England: on 27th

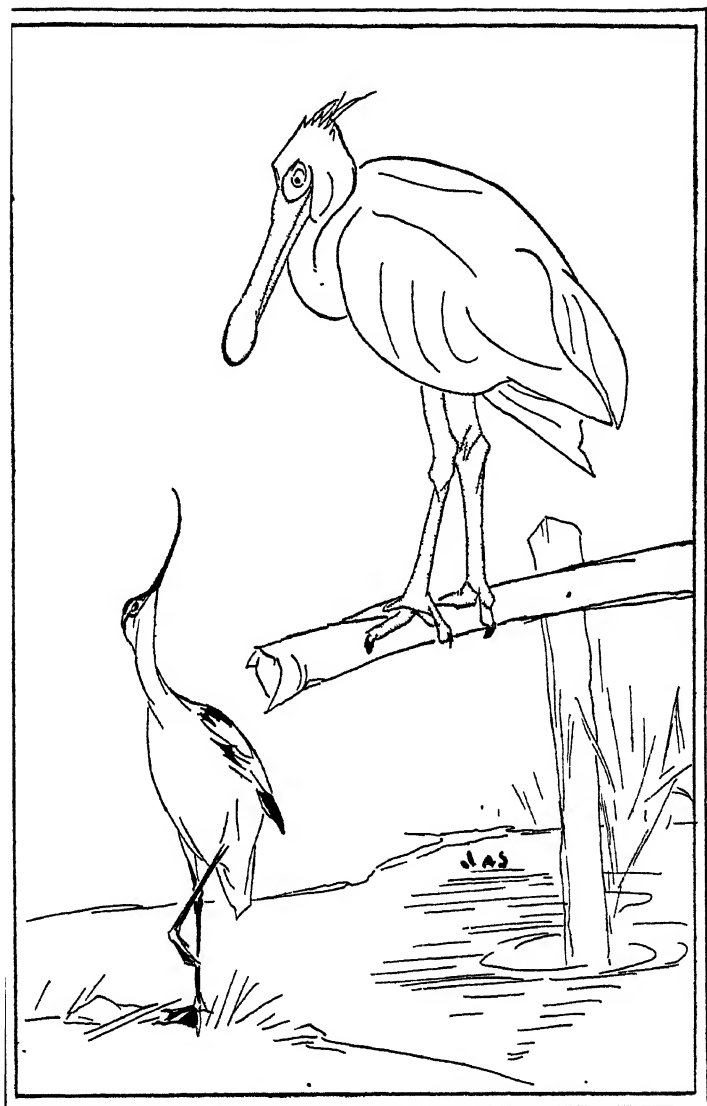
April 1932 two ruffs and a reeve were seen on the Reading Sewage Farm. Their presence at that time of the year encourages the hope that they stayed to breed. Perhaps the reeve may wish her spouse would take a leaf out of the book of his plain little cousin, the dotterel, whose name has long been a synonym for fool; for, whatever the measure of his intelligence, the dotterel has a strong sense of marital duty and shares with the hen the task of incubation. Strange that two birds of the same Family, the *charadriidæ*, should be so dissimilar in their domestic capacities.

Most of the birds we have lost are of the fen-haunting and wader species; this for the sufficient reason that our fens have been drained. The spoonbill is one of these; the bird owes its name to the "singular and unusual figure" of the bill as Willughby and Ray in their *Ornithology* (1678) express it; and the adjectives are justified, the end of the bill being expanded "into an almost circular figure of the likeness of a spoon". The bird was a British breeding species in the seventeenth century; Sir Thomas Browne says it nested in trees in Norfolk and Suffolk, sometimes sharing one with herons. As a builder in trees the spoonbill deserted us, not because of difficulty in finding nesting sites, but because food—small fish, frogs, molluscs and other animal meats to be found in shallow waters—became scarce in its favourite resorts. It still pays an occasional visit to the east and south coasts but does not stay to breed.

Willughby and Ray say the bird nested at Sevenhuys near Leyden in company with herons, cormorants and shags (green cormorants); and when the young were "ripe" the farmers would "catch the boughs and shake

them down". Which was treating the nestlings as though they were apples.

Another interesting bird lost us by the drainage of fens and marshes is the avocet. When Willughby and Ray wrote they could say that "the Avocetta of the Italians" frequented our eastern coasts in the winter; which was a mistake, since later authorities describe it as a summer visitor who bred in England as lately as the eighteenth century. The older writers were puzzled by the upward curve of the bird's bill which is "slender, weak and long, and of so inconvenient a figure one would wonder how it could gather its food, be what it will". Neither had seen the avocet feeding, so could not know that it seeks food by sweeping the mud from side to side, for which action the bill is perfectly adapted. Montagu, in his *Ornithological Dictionary* (1802), calls it the "Scooping avocet" in recognition of this practice. In justice to Willughby and his colleague it must be allowed that the bird's bill looks like one of Nature's practical jokes. At the beginning of the nineteenth century the avocet was still a resident, breeding in the Lincolnshire fens, Romney Marsh and no doubt in other suitable localities. Montagu thought its feet, which are webbed half-way to the claws, were "calculated for swimming", but he had never seen it swim. Those very long legs with their half-webbed feet would make swimming a wearisome exercise—rather like paddling with a racket at the end of a hop-pole; and the avocet, above all things a wader, is content to move about in the shallows. We rarely hear of the bird in this country now; Dr. Bowdler Sharpe, editing Seebohm's *Eggs of British Birds* (1896), speaks of it as only a straggler on migration. A



SPOONBILL AND AVOCET

species takes a long time to realize that old haunts are not what they were.

Imagine these two comparing notes :—

The spoonbill told the avocet,
“ Yours is the strangest bill,
Turned up, not down ; how do you get
Enough your crop to fill ? ”

“ Oh spoonbill ”, said the avocet,
“ To yours the palm belongs,
No other bill I ever met
So like a pair of tongs.

“ But shall we rather not rejoice
In beaks that look absurd
Distinguished thus by Nature’s choice
From any other bird ? ”

Familiar at least by name to most of us is the bittern, banished by the drainage of marsh and fen, but still seen or heard occasionally ; usually heard, since he is a bird of night. Of solitary habit he was not to be caught in quantity like the knot and ruff, so the fowlers left him alone, though shooting men did not ; indeed, the bittern ranked as a game-bird ; Montagu says, “ its flesh has been accounted a delicacy, and the poulterers value it at not less than half a guinea ”. Colonel Peter Hawker, in his *Instructions to Young Sportsmen* (1814 ; fifth edition, 1826), once a classic, and still well worth reading by those who would learn the ways of wildfowl, tells his reader how to set about shooting the bittern :—

“ To know if there are any in the fens, send out in the evening when they may be seen on the wing, and heard making a hollow booming noise. The following day you may beat for them with dogs that will

either point them or hunt near enough to spring them within shot ; as they will lie so close among the rushes as to be sometimes nearly trod on before they will rise."

This bird employs the same means of defence as the heron—endeavours to strike you in the face with its sharp and, for the size of the owner, powerful beak.

Of all the birds we have lost the great bustard was the finest ; Willughby, in what seems a despairing endeavour to classify it when classification had not attained even to infancy, describes the great bustard as " One of the Birds of the Poultry Kind that Wants The Hind Toe " ; whence it might appear that he had in mind the domestic turkey which the cock bustard resembles in point of size. In his time, the seventeenth century, the bird was found in various parts of England, notably on Newmarket and Royston Heaths, in Wiltshire and other districts where there were wastes and plains. The shyest of birds, heavy and slow to rise on the wing, the approved method of taking it was with greyhounds. Once the great bustard did rise its flight was as majestic as that of the eagle.

The bird had become rare at the beginning of the nineteenth century ; in the Supplement to his *Ornithological Dictionary*, published in 1814, Montagu says that not a single bird had been seen in what used to be its favourite haunts for two or three years. He refers to Wiltshire, for Mr. C. Gwilt, writing to the extinct *Standard* over the date 19th December 1897, tells how his father, riding on Wether Hill Heath, near Icklingham in Suffolk, one spring day in 1827, saw thirteen great bustards together, preening themselves among the heather. Thanks to his being on horseback Mr. Gwilt was able to approach within 30

or 40 yards, which a man on foot could not have done. The last specimens taken in England were two killed near Swaffham in 1838.¹

The bird might have survived in a domesticated state ; and we find some reason to think that efforts were made to rescue the remnant of the species ; it is written that half a guinea was no unusual price for an egg (the bird lays but two) ; and, more significant, a pair of young ones, not full grown, would bring 10 or 12 guineas. The wealthiest would hardly buy a brace of birds for the table at such prices, and the intention must have been to rear them as peafowl are reared—for decorative uses. Presumably the bustard did not take kindly to garden life, and died untimely. This was unfortunate, for the cock's display is very curious. Many years ago it was to be observed at the Zoo in an imported bird (from Spain, if memory serves). No hen was there, but the cock made believe there was, and showed off accordingly : the stiff tail feathers were brought forward over the back in such wise that the soft white under-plumage concealed them ; laying his head well back and throwing out his chest, his head was partly hidden by the white under-feathering of the wings which he upraised ; and in this posture he strutted, turkey-like, as long as I stayed to watch him.

Along the cock's neck is capacious gular pouch whose use to the owner greatly exercised the earlier naturalists. Montagu thought it was most probably a receptacle for the conveyance of water ; it would, he calculated, hold three or four pints, and the thoughtful cock brought this

¹ Mr. Gwilt's letter drew one from Mr. Edward Elton, who stated that he possessed some feathers from a hen bustard which was shot near Warminster about twenty years previously ; i.e. about 1877.

refreshment to his nursing mate and her chicks; a plausible theory as the hen nests on dry and sandy plains. Selby, in his *Illustrations of British Ornithology* (1865), would not have this explanation, pointing out that the cock had no sense of duty to wife and progeny and was "never seen in close company with the hen except previous to incubation". He thought the water stored in the pouch was used only for defensive purposes—to be squirted in the face of any beast or bird of prey, "thus baffling pursuit". Later authorities (Newton and Gadow's *Dictionary of Birds* (1893-6), settled the point:—that gular pouch is not used for carrying water at all.

A very different bird is the kite, once so common and so useful as a scavenger that it is said to have been protected by law in the City of London. Its fondness for garbage explains its utility; but it did not stop there, for Turner (1544) says it "is wont to snatch food out of children's hands"; clear proof that it was treated with the indulgence that breeds audacity. The kite shared a rich living with the dogs and pigs that roamed the streets of our towns; until 1662 there seems to have been no attempt to clean them; then it was enacted (14 Chas. II, c. 2) that "Scavengers, Rakers or Undertakers" should be appointed to clear the streets of London and Westminster and allowed to deposit the refuse "in such vacant publick places in or neere the Streets and Highways", as might be convenient. "Carts, Dung-pots and other fitting carriages were to visit all the streets daily, except Sunday, announcing their arrival by Bell, Horn or Clapper, or otherwise shall make distinct and loud noise". These measures made for the convenience of the kites which, instead of ranging the streets, could resort to those vacant publick places appointed for middens. The birds

were very numerous ; a century before that Act was passed, Belon (*Observationes*, cited by Newton and Gadow) stated that they were scarcely less common in London than in Cairo.

The species fell a victim to improved sanitary methods, and as these came about slowly the kite was slow to disappear ; at the end of the eighteenth century the birds were still found about Alconbury Hill in Huntingdonshire, and members of the Hawking Club founded by the famous Colonel Thomas Thornton used to assemble there every year to fly their falcons at them ; the kite affording finer sport than any other quarry. Now, the species is represented only by a few pairs, jealously protected in South Wales ; the exact whereabouts is known only to those who can keep a secret.

The kite is still to be seen in various parts of the Continent ; it was a regular visitor to the beach at St. Jean de Luz, a few miles south of Biarritz, sailing along the water's edge in quest of whatever the tide might have thrown up ; and there might be observed the singular grace of the bird's flight ; no fowl of the air excels the kite in the beauty of its movements ; every turn governed by the tail ; Pliny was perhaps right when he hazarded the suggestion that man learned the art of steering from the kite. Man certainly could not find a better model.


It is doubtful whether the Hoopoe may be included among the birds we have lost, as there is reason to believe that we never had it, at least in any plenty. Dr. Turner says that " nowhere in the whole of Britain is the *Upupa* to be found (so far as I know) ", though it was very common in Germany. On the other hand, Sir Thomas Browne says of this " gallant mark'd bird " that it is not hard to shoot ; which suggests that it was not a rarity.

Having regard to the peculiar tameness of the hoopoe and the fact that in Sir Thomas's day nobody tried to shoot a bird flying, the clumsiness of hand firearms forbidding, it would be very easy to shoot a hoopoe, thanks to its curious habit of lying flat on the ground with those black and white barred wings extended. I have walked without any precaution within half a dozen yards of a hoopoe thus spread out ; and do not think the bird was under the impression that he was invisible in this posture ; which recalled the attitude of the young pheasant feebly trying to hide on open ground by sprawling with neck extended at full length. Like the song-thrush the hoopoe employs dung in the construction of her nest but, unlike the thrush, selects the most malodorous, so that a shocking smell pervades the hole that contains it ; a smell that clings to mother and young. Kept under hygienic conditions this objection fades away. The Rev. Hubert Astley brought home from Egypt seven young hoopoes and let them fly at large in his garden, where they were quite content to stay, coming to be fed when Mr. Astley appeared with a tin of mealworms. A very interesting account of these birds was given in the *Agricultural Magazine* of January 1900. A few hoopoes make their appearance in the south-eastern counties every spring, and some have been known to breed ; perhaps more would consent to stay and rear families did they attract less attention, usually hostile ; that crest makes the gallant mark'd bird yet more conspicuous, and works his undoing. At the same time those who have smelt the nest of a hoopoe opine that it were better if the bird built it in a far country.

All our hawks are much less common than they were in the days before game-preservation became the rule. Blome in the Fowling section of his *Gentleman's Recreation*

writes of "five or six hawks—at once in your tree", which points to large numbers ; but of course we have to remember that in the interests of falconry our birds of prey, also their nests and eggs, were jealously protected by statute ; the law (37 Edw. III, c. xix) prescribed the gallows for the sinner who stole a trained hawk.


Which leads to the reflection that our modern endeavours to protect birds go just the wrong way about it. Consider ! A long list of birds is printed and stuck on some hoarding, probably too high for a person of ordinary stature to read it ; and that list includes birds of species not one man in a thousand could identify if he held it in his hand. Surely the right method would be to publish a list of the birds that *may* be killed ; it would be a very short one, and the point is that such birds are so common that everybody knows them at sight ; so common that they are a nuisance. Moreover, were I consulted—which is unlikely to happen—I would urge that freedom to kill injurious birds should be granted, not by county or borough areas, but to those whose business, craft or calling suffers from species which are too plentiful ; thus the farmer should be allowed to slay starlings and other birds which plunder his fields, whether at seed time or later ; the pisciculturist should be held blameless if he shot herons and gulls. Anxious as we all are to preserve our birds the interests of mere Man must come first, and he should be at liberty to defend himself from enemies of whatever kind.



CHAPTER THIRTEEN

Accidents : To Brown owls—to merganser—to heron
—to pheasant—to snake and frog. Shore-birds and
shell-fish—to linnet—to swifts—to wild duck. By
hanging. To hare and rabbit. Birds feigning lameness.

Longevity of birds.





CHAPTER THIRTEEN

OWLS should be careful how they set about catching rats ; the reflection is prompted by regrettable accidents at Mr. Pullen's farm, where, under an open shed, are a couple of large cement-lined receptacles in which food for the pigs is mixed ; liquid stuff beloved of pigs ; also of rats. A few days ago, one of these receptacles, in which the wash was within six or eight inches of the top, was found to contain three rats and a tawny owl, all dead. It was easy to read the tragedy ; the rats, having finished their meal, had been unable to get out and the owl, attracted by their squeals, had pounced upon one of them ; failing to kill the beast at once with the usual strong grip of the claws across the head, the bird had been dragged into the wash and, plumage soaked, was drowned. In ordinary circumstances the death of a rat in the claws of an owl is instantaneous ; the brain is penetrated and blood oozes from the ears. Last week another tawny owl fell into the same mistake, but this one was more fortunate ; found in time by one who knows the worth of owls on a rat-haunted farm he was taken out—in, needless to say, a pitifully bedraggled mess,—dried as far as might be, and set on the roof of an outhouse he recovered in the sun, what time small birds came about and scolded him as their habit is.

Bird of prey, whether hawk or owl, is so intent on capture of the quarry it has in view that it recks nothing

of danger to its own person. There was that case of the sparrowhawk and pigeon : the attention of a man working in his garden was drawn to a flock of pigeons feeding on the ground by an unwonted commotion ; looking up he saw a sparrowhawk in the act of seizing a bird ; and running to the rescue, caught hawk and pigeon together. Hawks when in close pursuit do not look, or seem not to care where they go ; a sparrowhawk close upon a sparrow followed it into a grocer's shop, to be caught among the sugar-loaves in the window. This concentration of purpose is not peculiar to hawks ; two sparrows close locked in fight fell in the garden, and when within two feet or thereabout of the ground the cat who was following me sprang and caught one bird ; the other maintained its hold of the foe until the cat had brought down the latter ; then, and then only, did the other take flight.

But we are concerned with accidents to birds, not with the single-mindedness they display under particular circumstances, or as might be said, their inability to entertain more than one idea at a time. Once was sent me a merganser which had come by its end in a most unusual way ; the bird's left nostril was tightly plugged by a young eel whose head half was inside the nasal passage and down the throat. The bird, manifestly, had caught the elver, which was $2\frac{1}{2}$ inches long, by the tail ; and the victim, seeking escape had struck its head into the bird's nostril. It could not back out and the merganser could not expel it, hence, breathing impeded, the bird died what must have been a lingering death.

Their own indiscretion may prove fatal to birds ; a big bulge in the neck of a young heron found lying dead invited a *post-mortem* ; the bulge represented a water rat which the misguided bird had tried to swallow, and

proved many sizes too bulky. Herons eat water rats, but the bird is usually wise enough to refrain from trying to gulp down an outsize specimen. In the case mentioned it may be that the approach of a hungry friend recommended undue haste. Pheasants have been choked by trying to swallow mice; though what business a pheasant has eating mice it is impossible to say.

Birds are not the only creatures who misjudge the capacity of the gullet. One day at Maulmain in the grass before the bungalow there was a small tragedy; a whip-snake about 15 inches long, had seized a bullfrog by the hind-leg and swallowed it up to the frog's body; there to stop. The dilatibility of any snake's mouth and gullet is great, but this fellow whose widest gape was only $1\frac{1}{8}$ inch had sadly overreached himself, for the bullfrog, $5\frac{1}{2}$ inches in girth, must have been many sizes too large for a reptile thrice the size of him who had seized it. When the snake was killed and opened up it was seen that the two had been in their disagreeable situation for some time, as all the skin and some flesh had been digested off the frog's leg. Frogs are very hardy and survive wounds that would prove fatal to most created beings; but it seemed more humane to destroy this one than to let him go with the bones of the leg so nearly stripped.

The smaller shore birds which eat shell-fish sometimes get into trouble that may prove fatal. Bivalves, such as mussels, feed with the tongue protruding between the partly opened shells, and the lightest touch on that organ is followed by the instant shutting of the shells; they snap together like a spring trap; thus, the incautious bird that pecks the tongue is liable to be caught and held. A moorhen thus perished at the jaws, as we may say, of a big swan mussel; it was too heavy for the bird to lift and

held its captive till starvation ensued. A coot among the birds Mrs. Alison of Park Hall, Chorley, used to feed was more fortunate; one morning she saw that it had something attached to its bill. She caused it to be caught, and then found the something to be a horse-mussel as big as, or bigger than, a table-spoon. The bird had pecked at the tongue, and the shells snapping to had fairly muzzled that coot. The shells were prised apart; and the eagerness with which the coot fed while still in the rescuer's hands proved that it had been muzzled thus long enough to render it very hungry. The little sand-piper is sometimes trapped by a common mussel.

I once rescued a linnet from a predicament that would probably have resulted in starvation; it was rising with other birds from a field of peas, and before it cleared the crop fell fluttering. A leg had been caught by a tendril which had so wound itself about the limb that it was easier to cut than unwind.

A gamekeeper on Dalnaspidal moors in Perthshire was the unwitting instrument of causing a strange mishap to a grouse chick; while going his rounds he disturbed a brood which were sheltering from the rain under the mother; on his approach the five cheepers scattered, and one, running, impaled itself upon a sharp spike of burnt heather which passed right through its head.

A very curious accident was recorded in the Report of the Ashmolean Natural History Society of Oxford for 1931: two swifts came into collision with fatal results to both; flying best pace they met in the entrance of Theale station goods shed. Mishaps due to excessive speed are not confined to motorists.

The classic case of bird fatality due to the victim's failure to look where it was going is that of a wild duck

which, flying down a glen, crashed into a bucket full of water a girl was carrying on her head: the bird was crushed out of all shape and the metal bucket was deeply dented. Not long since *The Times* recorded a strange accident to a swan; the bird could not have looked where it was going, for it flew against a chimney-stack and broke its neck. The swan in flight always makes one reflect how much more dignified would be his carriage were he to emulate the practice of the pelican, the weight of whose great pouched bill obliges him to throw back his head in a graceful curve. With that long neck extended to its utmost the swan cannot hope to look his best.

Numerous birds, in size from the gull to the sparrow, have been killed on the links by golf balls; but the case of a "small bird", species not mentioned, killed on the rifle range at Breckonhill must be unique; it was cut in two by a bullet ten or a dozen yards from the muzzle of the rifle. The miss scored was attributed to the interference of that bird; but without reflecting on the skill of the marksman it is improbable that the victim deflected the bullet.

Many birds have been found hanged, or worse, suspended by a leg till death ensued, neck or foot becoming entangled in some horsehair, bit of fibre, string or similar material that was being used as nest lining; a loose end catches the bird which, flying off, is held. I once found a young blackbird ready to fly—his nest-mates had flown—held fast by a strong thread of grass which by some means had laid firm hold of his foot; luckily for him it was too short to let him climb over the edge of the nest; but he must have starved—some people say been poisoned by the parents—had he not been rescued in time.

Were there such a functionary as the Coroner, in the

bird world, he would have a large variety of accidents upon which to adjudicate :—

“The case before us, gentlemen, is simple ; it is one That only asks a verdict saying *why* the deed was done. The facts are plain ; a witness found this sparrow hanging dead And says he saw ’tween neck and nest a length of worsted thread.

“Deceased was not a suicide ; we’ve heard no word of strife. He was at peace with all the world—yes, even with his wife. The verdict ‘Accidental death’ implies the victim fell. That or ‘Death by Misadventure’ might fit the case as well.”

So “Death by Misadventure” was the verdict that they found, And a song-thrush who was foreman declared the jury bound To add a warning rider ; so they did ; and what it said Was, “It is very foolish to line nests with worsted thread.”

Which is what might be expected of a jury led by a foreman who uses cowdung to make a smooth hard lining.

Hares and rabbits occasionally come to grief, colliding with some obstacle they fail to see in their haste. Apparently neither animal can see well anything directly in front, even when travelling slowly. I have had a rabbit come lolloping down a woodland path straight at me until within a very few paces, when he realized danger ahead and quickly turned aside into the undergrowth ; perhaps he mistook me, standing still to see how near he would come, for a tree.

A hard winter is productive of painful mishaps to beast and bird ; there is the case of that unfortunate water rat ; he was seen trying to climb the sluice-gate of a mill pond, the board being sheeted with ice ; he slipped back two inches for every three he gained, but stuck gamely to his work, though the water froze faster than he could climb. It was exhausting, and he stopped to rest ; and that pause was his undoing ; when he tried to start again his feet

and underside were fast frozen to the gate, and as he was beyond reach from the bank had to be left to his fate ; which let us hope came quickly.

The formation of ice is a curious sight. I once saw the process while strolling along the shore of Lough Sheelin in the County Cavan ; a tiny ripple under withered grass at the water's edge made me stop, for the lough was glassy still and it seemed that some animal must have caused that ripple ; it was no animal ; while I looked a sheet of ice shot out fully eight feet, wide at the shore and narrowing to a point. A moment later another such ice cape sprang into being close by, and the space between rapidly froze the two together. Formation of those ice capes was so swift one could not reckon the process by time.

Hares have been killed in a condition that must have resulted in death, hard balls of snow forming on the belly ; such varying from the size of a marble to that of a chestnut, and clinking like metal when the beast is picked up. I remember seeing a Skye terrier in the same case on a doorstep in Perth ; his belly was a mass of hard frozen snowballs, so many that the dog was no longer able to move and had lain himself down, worn out by the effort. He had to be taken indoors and thawed out. An animal thus crippled must die unless man happens to come to the rescue. Birds are liable to a similar fate if hard frost succeeds rain ; frozen to their perches they perish.

From birds that meet with accidents to the bird that makes believe to have had an accident is a short step ; and there is no stronger proof of the intelligence of birds than that familiar pretence of lameness to lure an enemy from the vicinity of the young. All ground-building birds practise the trick, also, on occasion, birds whose

nests are within a short span of the ground. The pheasant may do it, but not, I think, habitually ; possibly because the hen is not the most solicitous of mothers ; the partridge is notoriously addicted to shamming lameness ; also the lapwing and wild duck ; but many other birds are equally proficient.

Numerous cases of feigning lameness were recorded in the *Field* sixty years ago in response to an appeal from Dr. Bree, who was then engaged upon his ornithological work. One of the most interesting was an incident witnessed by a correspondent who signed himself " W. C." ; he said that while out on the Dumbartonshire moors training a brace of young dogs, he felt a fluttering about his feet, and saw a nightjar (ground builder, be it remembered) dashing at his legs, its feathers erect like those of an angry gamecock. So fearless was the bird he could easily have caught it. The bird was still attacking him vigorously when one of the dogs came up ; and at once the nightjar ceased its assault on the man to " sidle away in most crippled-looking fashion ", the dog in pursuit. " W. C." then looked carefully about and discovered two young nightjars within a few inches of his foot. It was an odd case ; the parent bird evidently thought its demonstration against the man's legs should suffice to ward off danger from the human foe ; or possibly it merely sought to warn him that he was about to tread on her nestlings. The dog was an enemy of other colour ; dangerous to attack, and therefore to be lured away by an exhibition of lameness.

Another case of particular interest involved a sparrow, a bird which has never been known to build on the ground, the nest being usually well out of reach. Mr. John Page wrote to *The Times* describing the matter :

he came suddenly round the corner of a lane and saw on a low wall a hen sparrow feeding a young one which had left the nest too early, as it could fly only a very short distance. On Mr. Page's appearance the mother fluttered up and about making a great fuss ; then an idea, new to the sparrow as a tribe, occurred to her ; she hopped a little way along the wall, then spread her wings and lay on her side ; she rose and repeated this manœuvre as Mr. Page advanced ; also other antics, once almost allowing him to catch her. " I certainly thought she was wounded. Presently, with a saucy chirrup she flew strongly over my head in the direction I had left the young one, and on going back I found the latter had reached the bough of a tree, out of danger." A more convincing case of studied deception could hardly be found ; the bird shammed disablement until, and only until, her young one was safely ensconced in the tree ; then she renounced the imposture as having served its end.

It has happened that a bird will go a step further and sham death. In *Loudon's Magazine of Natural History* for 1835 Mr. C. Conway tells how this was done by a skylark ; the bird allowed him to pick it up ; tossed aside, the lark fell like a stone ; and after a time shuffled away as if lame. That habit of wild creatures—keeping absolutely still when they believe themselves seen—may be the preliminary step to feigning death ; it is not a very long step from one trick to the other. Someone has asserted that a wryneck will sham death if taken in the hand. First catch your wryneck.

The dotterel, not accredited with much sense, will sham lameness ; so will the snipe ; and among birds which do not build on the ground the garden warbler, wagtail

(species not mentioned) yellowhammer, blackbird and blackcap have been seen to do it. Most curious perhaps of these is a case in which a wood-pigeon feigned disablement; that bird rarely builds anywhere within reach and doubtless this individual adopted the plan to lure someone who might have been an enemy away from her young one on the ground.

The gallinaceous birds, such as the partridge, and members of the plover Family such as the lapwing, can plead the best reason for cultivating this habit; their progeny come out of the egg with eyes open and able to move about; hence they are liable to attract hostile notice, whether from ground vermin or birds of prey. The stratagem with such is habitual and, we may suppose, is heritable: but when we hear of such a case as that described by Mr. Page it provokes speculation; in that sparrow we have an individual of a species in which the manœuvre is certainly not inherited, and must be the outcome of spontaneous ingenuity:—

If an enemy comes near your nest
 And the chicks can't be made to sit still
 The device we're agreed on as best
 Is to act as if crippled or ill.
 I admit it's a form of deceit
 But I only can plead that it pays
 When through practice you're skilled in the feat
 In its one or two different ways
 You may let a wing trail on the grass,
 Making out that it's broken or sprained,
 And with ninety and nine it will pass,
 Though the hundredth will know what is feigned.
 If you hobble along as if lame
 Till the foe is lured far from your brood,
 The result is precisely the same,
 For the simple deception holds good. . . .

We have little knowledge concerning the duration of life of birds who escape accident and live out their lives to the full span ; but, thanks to the system of " ringing ", are slowly acquiring information on this point. A starling, ringed as a nestling, was recaptured when four years and five months old ; a song-thrush when five years and eight months ; a blackbird when nine years and nine months ; a swift after eight years and two months (this was one of the two who collided at Theale goods-shed). The oldest recapture so far was a lapwing, retaken after $11\frac{1}{2}$ years. These details are given in the 1931 Report of the Ashmolean Natural History Society of Oxford.

There is no standard of comparison between birds held in captivity and those that are free ; but the career of a female golden eagle kept at Maldon in Essex may be worth mention as showing that this species lives long ; the bird died after forty-six years (1865-1911) in the owner's possession. We know that ravens live to an advanced age, and probably other members of the crow Family enjoy long lives ; but with the prospect of learning definite facts it is not worth while considering probabilities.



CHAPTER FOURTEEN

Seafowl on the Cork coast. Shag. Blackbacked gull. Oyster-catcher. Tern. Storm petrel. The Skelligs in local tradition. Puffin. Guillemot and razorbill. Wild swan. Carriage of young on back by water birds. Gannet. Arctic skua. Fulmar petrel. Blackheaded gull.





CHAPTER FOURTEEN

MEMORY wanders afield to the Cork coast and its wealth of sea-fowl. The green cormorant is the bird that first comes to mind, as the one most in evidence ; always to be seen perched on some rock in that heraldic attitude with half-spread wings, drying himself in the sun ; he is the only water-haunting bird who objects to remaining wet, hence the reason for passing his many leisure hours posing thus. He may sometimes be seen splashing wildly in the sea striving to rid himself of ticks ; which abound in and about the nest. The shag, to give him his other name, breeds on the islands ; there is a great wedge of rock by High Island on the comb of which half a dozen have their nests, year after year ; and if prepared to face the ticks you may climb thereon for close inspection. The nests, each within a foot or less of its neighbour, are vastly bigger than are required for the young, from two to four in number, but no doubt the shag has reasons for providing accommodation so spacious. One thing is to be said in favour of these nests—exposed as they are to every wind that blows they are free from the dreadful smell that pervades those in a cave or like shelter. Not every shag likes to dwell in company ; a pair of exclusive tastes will nest in an oven-like hole on the cliff face, high above the sea. Young shags must be the ugliest of the bird kind ; excitable creatures, they receive the human visitor reared up at full stretch of their

legs and shriek ; while anxious and affectionate parents float overhead whining like unto sick dogs.

The shag is as ardent and successful a fisher as the common cormorant who does not patronize this region ; and the old ones feed their children in the same unlovely fashion, receiving into their interior the young one's head and neck that the infant may banquet on the contents of the paternal or maternal crop, which have been partly digested to render them suitable for tender youth.

It was the common cormorant that men trained to take fish. Where Charles II got the idea history does not say, but he kept cormorants at Westminster until the Committee to Advise on Retrenchment recommended abolition of the Cormorant Keeper, "whereby a sum of £84 per annum will be saved" (*Calendar of State Papers : Domestic*). The man must have been an expert, for that was a high salary in Stuart times ; but men capable of handling the birds were no doubt few.

The black-backed, or saddle-back, gull is common ; these have their nests on the thinly grassed top of High Island, on a little low rock and on any convenient stack. On the grass the merest scraping serves as nest ; of the two big eggs one is always highly polished, the other dull, the secretion which furnishes the polish exhausted. These gulls will attack a single person if he tamper with the eggs ; when there is more than one the birds sail overhead, growling in canine fashion ; large as this gull is the depth of that growl impresses one as unnatural—so unavine. When the site chosen is rock or stack the bird does construct a nest of seaweeds, wrack and sticks, rough and large.

Those smaller islands called the Skiddies have their bird population ; on the larger, which extends to about

an acre, dwells the oyster-catcher, better called by either of his alternative names, sea-pie or mussel-picker, "oyster-catcher" implying locomotive powers on the part of the oyster, and accrediting the bird with a taste in which he does not indulge; it would puzzle him to swallow a whole oyster, easily though he gulps down mussels. "Sea-pie" describes his black and white plumage which, with his sealing-wax red legs and bill, makes him an adornment to the shore; and "mussel-picker" indicates his staple diet. One cannot imagine that this bird enjoys his meals, unless indeed sense of taste resides in his gizzard; for he swallows mussels whole, grinds up the shells with that organ and ejects them in the form of thimble-shaped pellets. Such pellets are to be found in quantity on a certain stretch of flat rock where the oyster-catchers sit in contemplative digestion. The bird is not exacting in the matter of nesting site; eggs are deposited in a scraping on the shingle, in an elementary nest among boulders or scrabbled in a clump of sea-pink. It seems odd that they should breed on Skiddy where rats are many; the birds must have found means of teaching them to respect eggs.

The black-backed gull nests on a tiny islet close by; and the couple who have made this their own find a certain advantage; these gulls like sea-urchins; and sea-urchins as big as, or bigger than, a grape-fruit are heavy; thus the High Island gulls cannot carry these luxuries to their lofty heights, and the Skiddy islet being but a foot or two above high-water mark its occupants can; broken shells of urchin bear witness.

Terns are many, but I do not know where their breeding resort is on this coast. In my boyhood I once walked into the midst of a tern colony without knowing it until

the cries of a swarm of birds overhead gave me to wonder what could be the matter. It was about half-way between Nairn and Fort George, a solitary spot without human habitation in sight; and the terns had adopted a stretch of the beach well above high-water mark to lay their eggs; "lay their eggs", because in few cases was there any attempt to make a nest; here and there a tern of more than common solicitude had collected a few bents to lay on the shallow scraping in the shingle with, I suppose, an eye to the comfort of the family-to-come; but these were the exception. The eggs harmonized with the shingle so perfectly that had the terns' agitation not drawn attention to my trespass I might have walked right through the colony without discovering it; I only saw eggs when stooping to pick up pebbles to shy at the birds which had never allowed anyone near them, and now were so fearless.

The storm petrel nests on the Skelligs, many miles to the westward; when sailing, the pretty little bird was sometimes to be seen skimming swallow-like over the waves. Lighthouse-keepers do not like the storm petrel; it has the Fulmar petrel's objectionable habit of ejecting oil, and when it flies against the glass the oil is thrown up involuntarily, making work for the men; truly a bird that weighs about half an ounce cannot expel much oil, but when a number dash against the light the mess is said to be difficult to remove.

The Skelligs figure in local tradition; in the remote past there existed on the top of the main rock cells occupied by monks who had withdrawn from the world—hardy anchorites they must have been; and hard put to it to discover a spot where they were less likely to be disturbed. It is the custom in those parts for young

people to marry at Shrove-tide, and when that season approaches a self-appointed committee draws up a list of the men and maids they think ought to marry "on pain of being sent to the Skelligs"; the men, that is. Few of those thus listed do marry, and it is the thing after Shrove-tide to go round to the young men who remain single with the query, "Is it that you have the shins sore?" the implication being that, as celibates, they have climbed the 300 or 400 rough steps to the site of the monks' former abode.

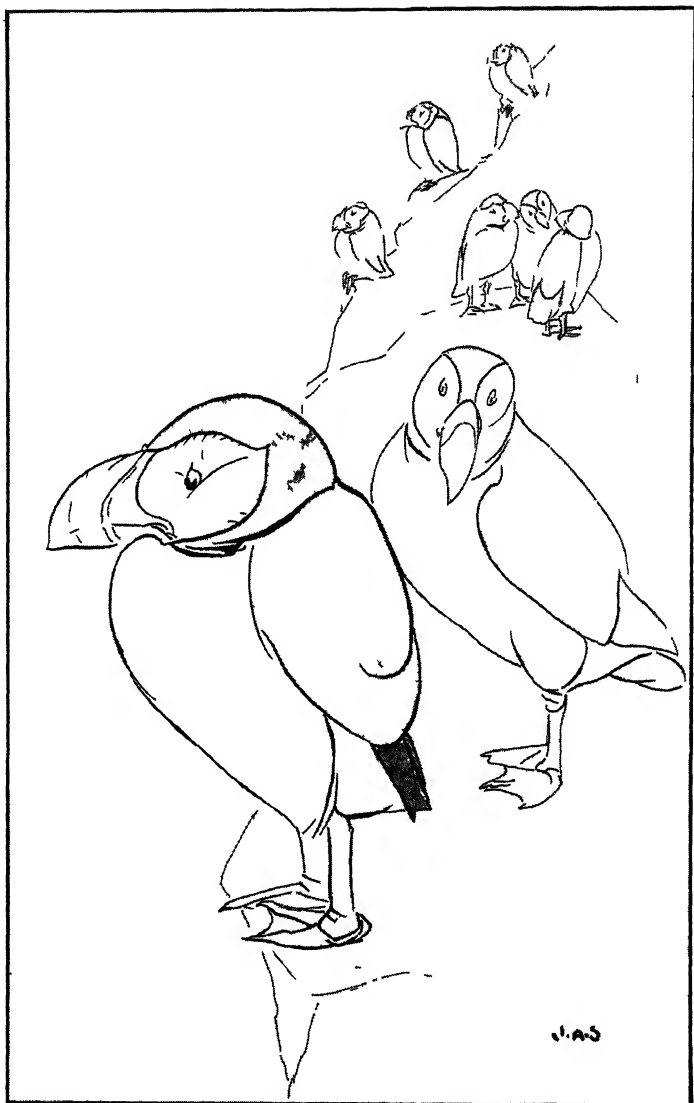
There is a colony of puffins on the south slope of High Island where the earth, slipping from the rock face, has left a low cliff suitable for their requirements; the birds spend much time sitting silent, as in deep thought, before their shallow burrows.—They have the reputation of being very quarrelsome, but are peaceful enough while a human stands to watch; they put aside causes of dispute in their curiosity about the visitor. Puffins are very poor pedestrians; they walk with difficulty, and when one flies up from the sea he goes straight to the burrow and pitches at the entrance, making no attempt to walk even a few steps. A friend told me that he once caught an adult bird on a sheet of rock; it could not rise in time to evade his hand. Those who have pressed unwelcome attentions on a puffin say that it bites hard; and that parrot-like bill promises a bite to be remembered. The St. Kilda folk used to catch the birds with a horsehair noose attached to a long rod; in wet weather when puffins remain at home an expert might take as many as 300 in a day. They were good food—according to local opinion; in sixteenth-century England the puphin, as Dr. Turner calls it, was "used as fish among us during the solemn fast of Lent, being in substance and taste not

unlike a seal". A diet of puffin would add something to the solemnity of Lent—or any season.

I wish to think well of these birds, but it must be confessed that the hens are lacking in the interest a mother should display in the first paddlings of her only child. She does not supervise these herself, but entrusts the little fluffy black creature to the care of what doubtless is an experienced and careful hen who takes charge of ten or a dozen chicks and with them puts to sea, in calm waters. The "fleet", as they call it in Ireland, swim in a ragged file, the nurse bringing up the rear in order to keep an eye on their doings. It is a practical plan, saving mothers much time; and perhaps we who employ nurses and governesses to look after our progeny are not entitled to criticize the methods approved in puffin circles. It would be interesting to know how this business is managed—whether the nurse is always the same bird; whether the mothers take turns at the duty; whether the nurse has a chick of her own; or, if it always the same one, is she married or single?

Guillemot and razorbill abound off the coast. So much alike are the two that when at a little distance on the water it would be impossible to tell which is which if they had not considerably agreed to wear their tails differently; the guillemot carries it turned up, the razorbill turns it down. At closer quarters the difference between the sharp bill of the guillemot and the laterally flattened bill of the other distinguishes them.

It will have occurred to anyone who has seen the guillemot at home and surveyed a large collection of the eggs that there must be purpose in the rich variety of marking; breeding as they do in great numbers along a rock ledge, this wide difference in the markings of the



THE PENSIVE PUFFIN

great eggs cannot but be helpful to each bird in recognizing her own. A thousand fly off the rock nursery, take a turn round and fly back in a whirling mob ; unless the eggs were distinguishable one from another recognition would be impossible—though of course it may be that a guillemot does not care whether she gets her own or not, in which case those varied markings serve no end. The same applies to the eggs of the razorbill.

The size of that egg is extraordinary compared with the bulk of the bird ; it seems out of all proportion, the more when the egg of another bird is set beside it. Take that of the raven ; the hen being a trifle under 25 inches in length, lays an egg 1.9 inch long ; whereas the hen guillemot, under 18 inches long, produces an egg of $3\frac{1}{4}$ inches. True, the raven lays five or even six which evens matters ; but the fact does not affect the great disparity between the eggs of the two.

The older naturalists persisted in calling *Uria troile* the “ foolish ” guillemot ; goodness knows why, for the bird has as much sense as any other sea-fowl ; it might be accounted folly in the very young one to throw itself off the rock ledge whereon it was hatched into the sea did the proceeding result in death or breakage of limb ; but, so far as is known, it does not. There are instances of timidity forbidding that dangerous-looking feat ; the keeper on Ailsa Craig in the Firth of Clyde told Mr. Gray, author of *The Birds of the West of Scotland*, that he had seen the parent bring down a young one on its back ; also carrying it cat-wise by the back of the neck. Dr. Edmondson of Balta Sound, Shetland, saw the latter method practised by both guillemot and razorbill. Doubtless the manner of descent is governed by the height of the ledge from the sea ; if very high, the parent

carries down the chick ; if not high, he, or she, bids the youngster jump, and if he won't, pushes him kindly but firmly over.

Reverting for a moment to the puffins : the young one lacks that grotesque beak, so like a false nose, with which its parents are adorned ; failing the presence of the nurse the little black things would not be known for what they are. The extraordinary beak is not developed till later in life.

The wild swan has her home on a small lake across the harbour, and raises the pile of sticks and dry vegetable matter that forms her nest within a few steps of the public road. In England the swan who chose so accessible a site for her nest would be rash indeed ; but this is Ireland, and bird, eggs and cygnets are safe :—

White the soul of the maiden pure,
White the breast where it comes to stay,
Resting in peace while worlds endure,
Waiting the Call on Judgment Day.

For the souls of maids who die unwed pass into swans, and he were a bold man who raised hand against them.

On bright, calm days in summer the swan is to be seen out on the lake, a cygnet or two on her back. Various water-birds habitually carry their chicks, or some of them, on the back while swimming. On a Norway lake I watched from the little steamer a great northern diver thus conveying her two chicks—the bird lays only two eggs—and as she allowed the boat to pass almost over her, getting out of its way with about three strokes, it was an opportunity of seeing the practice at close quarters. The chicks had plenty of space to move about, and they took advantage of it. The shelduck does the same

thing ; but as she may have as many as a dozen children, she can take only two or three on board at once ; I have seen one carrying three, as well as could be made out, the rest swimming alongside, perhaps awaiting their turn for a lift ; the three, if three there were, on deck seemed rather pressed for space.

The gannet is only an occasional visitor, though his tribe nest on the Skelligs. When a gannet does appear he attracts notice by his behaviour ; flying high, he suddenly turns head down, and with partly closed wings stoops like a hawk at some fish he has espied ; the sight of the bird must be equal to that of any hawk. The Skelligs colony is the nearest abode of the bird now ; thirty years or more ago there was one on a rock some miles from Castletownshend, the name of which escapes me ; the birds deserted it when a lighthouse was erected thereon ; gannets do not care for human society.

They are restless, combative creatures when nest-building ; with the defective morality of the rook they combine a taste for fighting ; and a fight between two of these big birds is a thing to see. As in the rookery, trouble arises over theft of the sticks and seaweeds of which the nests are built ; a large quantity of these is required and gannets are prone to steal material brought by a neighbour when that neighbour is absent ; it saves labour but naturally gives rise to unpleasantness.

The force of that downward rush is great. Dr. R. Howley of St. John's, Newfoundland, sent to *Land and Water*, 11th January 1896, a story which furnishes convincing proof of this ; it was a singular incident, but the doctor vouched for the veracity of his informant, a fellow-practitioner named Moran. Late one evening Dr. Moran was crossing Burin Bay in a fishing smack after visiting a

patient ; he was with the skipper in the cuddy and the only other man on board, an old fisherman, was at the helm. A heavy thud on deck overhead was heard and Dr. Moran and the skipper ran up to see what had caused it ; they found the old fisherman lying dead by the tiller, a gannet, also dead, with its beak buried deep in the poor old man's skull. Dr. Moran ascribed the attack of the bird to the fact that the deceased's head was quite bald, and, shining in the low moon, drew the gannet's assault. Anything on the water that glitters seems to invite this bird ; the recognized way of catching it is to fasten a fish on a board and let it float ; the gannet makes that incredibly swift stoop, drives its beak into the board and is self-held.

One memorable day our coast received a call from an Arctic skua, one of those robber gulls who will not be at the trouble of fishing for themselves, but chase smaller gulls and force them to surrender the fruits of their labour. The bird was not out for plunder, on the contrary he was flying eastward and in a hurry, for he ignored the many seafowl fishing off the base of High Island, though some must have tempted any skua, carrying fish to their young as they were. I once saw this bird in London ; he was sailing in leisurely fashion over the Row past the gate at the top of Ennismore Gardens, and had perhaps been paying a visit to the Round Pond, where black-headed gulls do so freely congregate in winter : " Like a little aeroplane," said a lady by me on the 'bus top ; and the word was apt. The length of wing catches the eye at once.

The County Cork coast is beyond the range of the fulmar petrel ; which is regrettable, for it is one of the most interesting of seafowl, though addicted to that objection-

able habit of ejecting oil ; oil which to the St. Kilda folk was precious ; clear, amber-coloured, and smelling horribly ; it was said a St. Kildan could always be told by the smell of him, which was not wonderful, since the islanders used it for their lamps, for rheumatism and as a medicine. Under these circumstances it was not surprising that the malodour clung about the people. They had their peculiar method of securing the oil : it was, of course, not desirable to kill the bird that vomited the golden oil, so the plan was for a man to go out at night when he could take the fulmars by surprise on the rocks ; when he caught a bird he held its bill tightly shut until he had the owner safe between his knees, head down ; then he quickly released the bill and thrust the head into the bag he had ready ; which bag was the dried crop of a gannet. The fulmar having discharged about a table-spoonful of oil into that bag was released ; and the bag, when full, was tied with string and hung up for use as occasion required.

About the middle of the nineteenth century this bird was known to breed only on St. Kilda, but since then it has enlarged its area ; Mr. Howard Saunders records it as nesting on Foula, Papa, Stour and other islands of the North. The fulmar is not beloved of the deep-sea fishermen, who encounter it 15 or 20 miles off the Shetland coasts. Saxby says the men do not care to molest it by reason of some superstition ; another, and more tangible, reason is that it is very bold and bites very hard ; the bird seems to know man respects, or fears, it, for fulmars will snatch morsels of fish from a boat under the eyes of the crew. The fishermen believe that it finds the fishing ground by the smell when baits are thrown out, for the birds will appear even though there be a thick fog ; it

seems doubtful, though, whether a fowl which smells so vilely itself is capable of smelling anything else. Saxby says that other seabirds are afraid of it.

The blackheaded gull, who owes his name to that rich chocolate-coloured head, anything but black, is the commonest of the family in the harbour of Castletownshend during the spring and summer. Whither it goeth for the winter this deponent knows not; it entirely disappears from these waters when the cold, such as it is, sets in, to reappear in the spring. The bird, if it obeyed rules, would shed that chocolate hood in winter; some birds do it, others shed it in part, others again do not let it go at all; one might say it is a matter of individual taste; but any Londoner who cares to see the variety in change or absence of change may do so at the Round Pond or on the Serpentine.

CHAPTER FIFTEEN

Peregrine falcon. Food of nestling kestrels. Grey crow. Tame carrion crow. Rock pigeon. Trinity House experiment with homers. Scarcity of sparrows in south-west Ireland. Geese as chimney-sweeps. Seal. Angler fish. Wasps and apples. Intemperate insects.

CHAPTER FIFTEEN

THE peregrine falcon has her eyrie on a great bluff a few miles to the west of Castletownshend ; the birds have bred there, says local tradition, since the day of Queen Elizabeth, whose falconers used to come and take the eyesses. They were hardy fellows who took them from Bean Cliff ! The eyrie can be seen from the sea ; to reach it a man must be let down by a rope and by sheer exertion swing himself in under the overhanging rock, what time he defended himself as best he might from the attacks of the parent birds.

It is strange to remember that there was a time when this grand hawk was known as the "slight" falcon (corruption of the Dutch *slecht*—common) ; it is long since that adjective could be applied to the peregrine. Marvellous is the speed of the bird in pursuit of quarry. The late Mr. J. E. Harting in his *Hints on Hawks* says Major Hawkins Fisher once timed a falcon flown at a grouse over a measured mile in Northumberland ; the distance was covered in 58 seconds. The falcon kills with a stroke of the hind talons, which are as sharp as needles. Colonel Thomas Thornton (*A Sporting Tour*) saw a snipe cut clean in two by a single stroke, the parts of the bird falling separately.

We have much to learn concerning the speed of birds' flight ; our airmen may be able to throw some light on the subject, as did Mr. Owen Cathcart-Jones of the R.N.

Air Service a year or two ago ; he wrote to *The Times* that while flying down the east coast of Greece one day in July 1929, his 'plane travelling at 70 knots as shown by the speedometer, a golden eagle flew past him on a parallel course about 80 feet away. He estimated the speed of the bird at not less than 90 miles an hour. Homer pigeons have been timed over distances, long and short ; they are by no means the fastest of fliers, their pace being variously put at from 35 to 40 miles an hour. Over a short course the heavy-bodied and short-winged birds make the quickest journeys ; the wild ducks and grouse, for example ; but fast as they go they are not able to maintain a high rate of speed for very long.

The kestrel is common hereabouts ; within 50 or 60 yards of our house, on a low cliff, a pair had their nest, and when they had nestlings one or other of the two was constantly passing over the lawn within 20 feet of the ground ; thrushes or other birds might be worm-hunting on that lawn but never did worm-hunter take any notice whatever of the hawk sailing by overhead, close down though it was ; and the kestrels were equally indifferent to the presence of the thrush or other bird. When the nestlings had taken flight I was moved to collect a quantity of the castings they had ejected to see what they might betray. Soaked in warm water and carefully separated, they consisted of the skins and bones of mice ; even the tiny bones of the toes ; not a trace of anything that would indicate a bird victim was revealed ; mice and only mice had been the diet of those young kestrels. No wonder the thrush and other birds viewed the passing of the parents with indifference. Under stress of hunger the kestrel may kill a bird ; Mr. Hugh Knight, a practical falconer who has trained a few kestrels, told me that the

bird must be very hungry before it will fly at a sparrow ; and as kestrels haunt those places where mice are to be found they cannot often be reduced to bird-slaughter.

Commonest of birds on the shore is the grey crow ; it haunts the water's edge all day in numbers. In these parts the farmers take no account of it, the number of ownerless dogs forbidding the sheep industry. In coastal districts where sheep are kept the bird is hated ; and with reason : the flock feeds along the top of a cliff, and a pair of crows, seeing their chance, attack a sheep, buffeting it with their wings, seeking to drive it over ; a manœuvre which often succeeds, as the sheep becomes bewildered and blunders to its death. Sometimes a number of crows regularly ‘‘ course ’’ a sheep, harrying with beak and wing till they gain their end. If a sheep, seeking grass, makes its way down to a ledge on the rock face the crows follow ; an old one baffles them by turning its head to the rock and maintaining this strategic position till the birds give up the assault. This sort of thing is known as ‘‘ cliffing ’’. The shepherds call the bird the ‘‘ Death Crow ’’. When a sheep has been driven over and killed every crow in the neighbourhood flocks to the feast.

A British relative of that bird is the carrion crow ; an ugly name for a fowl that makes a charming pet. One I owned was a thief ; he stole not from cupidity but as an intellectual exercise. He had grasped the fact that it is no use a bird's being honest unless he is careful, and if he were careful he need not be honest at all. He would steal a lead pencil from my table (he was fond of the house) and do it with the air of a purchaser while I was looking. A morsel of red sealing-wax in his eyes was a treasure of price, and assuming that my standard of value

was his own, he would wait till my back was turned to carry it off, which he would do with the stealth of a black ghost. It was the difference between our standards of value that enabled me to suffer his little misdeeds with calm. A sensible bird in most ways, he suffered from a strange conviction that he could sing; to the day of his lamented death he never learned that he was not a vocalist. When about to show off he perched on the sill of the open window and, ruffling up the feathers of back, head and breast, sink down, depress his beak and burst, always with startling abruptness, into that which resembled, more than anything else, the tune produced by a bird-scarer's old-fashioned rattle—a wooden tongue against the cogs of a wooden wheel. While thus enjoying himself he was in a kind of ecstasy, his whole body quivering, head shaking, eyes rolling. A true artist, he ignored offers of food while singing; but if his back were gently stroked and the ruffled plumage smoothed he would stop; the act seemed to affect his internal machinery; but the moment one's hand was removed he began again, to continue till tired. If there be such a thing as poetic justice that crow shall reincarnate as a nightingale.

Rock-pigeons nest in the cave on the west side of the harbour near its mouth; occasionally the sun caught the flash of blue that showed the bird was on the wing, making its way to the cultivated lands near the shore. It is hard to believe that our fancy pigeons are all derived from this bird—the tumbler, pouter, jacobin, fantail, homer, and the rest; but when man applies himself to the task of developing a variety the results travel far from the original stock; witness as an extreme case the gold-fish with double tail produced by Chinese fanciers.

The flash of the rock-dove over the sea recalls the endeavour to utilize homing pigeons as carriers of messages between lightships and the shore. It was in 1878 that the late Mr. Tegetmeier succeeded in persuading the Elder Brethren of Trinity House to let him undertake a practical experiment—the wreck of the S.S. *Deutschland* on the Kentish Knock with the loss of some seventy lives being the means of convincing those authorities that more speedy communication with the shore and lifeboats was desirable. Six trained pigeons of the best Belgian stock were allotted to each lightship, and a year later the birds from the Sunk Light-vessel were the means of bringing out the lifeboat to a ship in distress much sooner than otherwise would have been the case. It seemed as though the plan were to produce valuable results, but hopes were disappointed; the pigeons, of necessity caged for weeks, even months, together, suffered from the motion of the ship; in a word, they were sea-sick and would not or could not fly; they were unreliable, and the scheme which had promised so well was abandoned. Mr. Tegetmeier knew everything there was to know about pigeons, save that which he had had no chance of learning—that the birds might suffer from sea-sickness. Mr. E. W. Richardson has told the story in his work, *A Veteran Naturalist*.

The absence of the sparrow strikes the newcomer; when this was the subject of remark residents said there were a few at the Rectory a mile or more out on the Bean Cliff road; of itself a tribute to the comparative rarity of the bird; rarity which nobody has yet attempted to explain. The place of the sparrow is taken by the chaffinch, which is nearly as common as the other is in England.

Birds in Ireland lead a peaceful life in their relations with man, thanks to the fact that the boys know not the uses of the catapult and do not go in for birds'-nesting. The only two fowls that do suffer, at intervals and spasmodically, are the wren and the domestic goose; the former hunted in accord with ancient custom to be "caught in the furze", otherwise killed, tied up on a bush and on St. Stephen's Day carried round from house to house by the lads who sing and expect small tips; the latter by reason of that blend of economy and ingenuity which has devised means of sweeping chimneys: when a cottage chimney is very foul indeed the owner of that cottage borrows a neighbour's goose if he have none of his own, mounts his roof and puts the bird down; her flutterings during the descent clear away most, at all events, of the soot. A lady suggested to a tenant of hers that this method of chimney-sweeping was cruel to geese. He agreed with native courtesy: "It might be, me lady. I'll put down two ducks instead, me lady."

Seals have their home on the Stacks, or Staggs, a group of rocks which from the land has the likeness of a ruined abbey, but when approached resembles a gargantuan decayed tooth; here in the hollow the seals are ever to be found, playing, sunning themselves, lazing in the calm water. They do not often enter the harbour unless there be an invasion of mackerel, when they make their appearance off the Skiddies. While studied from a boat they pursue their avocations, if any, undisturbed; but let you make as if to land on these their sacred preserves, and the scene changes; every seal tucks his hind-flippers under him and propels himself headlong into the sea. Once afloat he knows he is safe and treads water to gaze at the intrusive stranger. If while basking high up on a beach

the seal is alarmed he gets over the ground at an extraordinary pace, his hinder limbs throwing showers of stones and sand to the rear at each stroke. Camden mistook this stone-casting for deliberate effort of self-defence; in his account of the North Riding of Yorkshire he says (Gibson's edition, 1695): "Near Huntcliffe on the shore when the tide is out the rocks shoot out pretty high, and upon these your *sea-calves* (which we contractedly name Seales) lodge in great droves, and there sleep and sun themselves. . . . Their greatest fear is of man; if they are pursued by them and want [to reach] water they commonly keep them off by casting up sand and gravel with their hinder feet."

We all know that the performing seal will kiss his trainer at command; but this action seems to require no tuition. Sir J. Campbell Orde (Millais' *Mammals of Great Britain*) watched from behind a wall at about 30 yards' distance six half-grown seals at play in the sea; and every now and then two would rise half out of the water and deliberately put their lips to one another, seeming to kiss as humans do. Admittedly the seal is affectionate when tamed, displaying for its owner an attachment that is dog-like; but whether the kiss observed by Sir J. Campbell Orde indicated love for a young friend is another matter.

Sometimes one of our amateur trawlers brought up an angler, most unlovely of fish; once a very young one about 12 inches long was taken from a net, and this served to solve the question concerning the means of attachment of the characteristic rod to the skull. The rod of the adult may be over 2 feet in length and, equipped as it is with a rag of skin at the end, is used to attract small fry (large also) into the wide and ugly mouth with its formid-

able array of teeth ; a mouth which, by the way, the fish cannot shut properly by reason of his projecting lower jaw. This rod can be waved in any direction, the base being a bone ring which passes through another on the skull ; and how that link came to be was the point to decide. It proved that in early youth the base of the rod is forked, the points of the fork joined by a thread of gristle which passes through the ring on the skull ; this gristle hardens into bone as the fish grows. The filament round the body of the angler (the "trimming" as a lady aptly called it) is very beautiful in the young one, patterned like lace and delicate ; in the old one this coarsens into an irregular edging of gelatinous lumps devoid of any beauty ; rather revolting to look at, indeed.

Most of us make the acquaintance of anglers when they are dead and aground on the sands. Anglers are unfortunate in their internal economy ; they have no gullet ; that vast mouth opens directly into the stomach which occupies by far the greater part of the anatomy ; you look into the angler as into a carpet bag. The size of his mouth and his inability to shut it close accounts for the presence of his corpse on the sands when the tide has gone out, and my own impression is that the angler goes to sleep on the sea-floor and slumbering as he must with his mouth open the retreating waters drift sand into him till he is securely anchored. It is difficult to imagine any fish allowing himself to be thus sand-laden unless he is asleep ; and very soundly.

This matter of fish sleeping was the subject of animated discussion in the sporting papers in the nineties. I am inclined to think they do ; everyone who fishes has come upon trout drawn up at the edge of a shallow, back out of water and very still ; so oblivious to the world that

by most careful approach it was possible to come within a few paces ; never quite close ; asleep or awake the vibration of one's footsteps roused the trout to instant flight. If trout under such circumstances are asleep their slumber is very light.

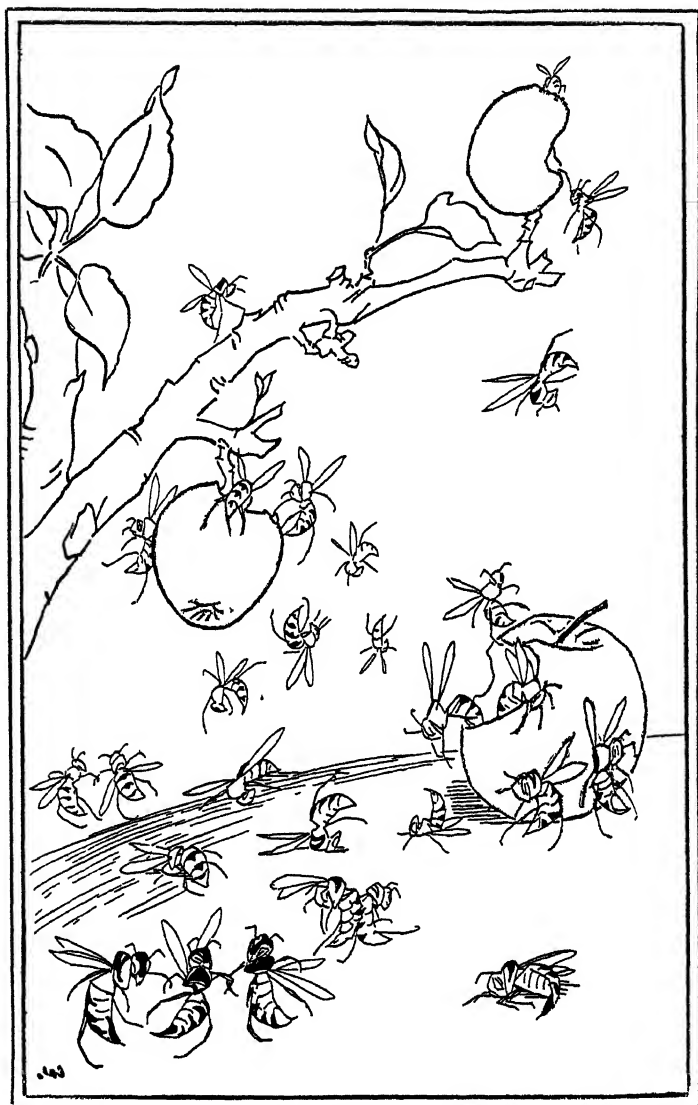
This is a matter owners of goldfish might study ; goldfish, if any, might be expected to spend much of their time sleeping, having regard to the appalling monotony of lives spent in a bowl ; it is not suggested that any fish requires definite occupation or amusement, but for sheer dullness the existence of bowl-dwelling goldfish must be the worst. Even a tortoise gets more out of life.

Heat and drought evidently favour the increase of the wasp : in the summer of 1933 they swarmed, and did more damage to the apples than is done in normal years by starling and blackbird together. We could bear their depredations calmly, for the crop was such that we did not know what to do with it ; neighbours were equally oversupplied, and smiled ironically when asked if they would care for some apples ; the village shop took over a few hundredweight which the villagers bought at a penny a pound ; Mr. Stone's pigs banqueted on the wasp-eaten, and the apple-house was overfull before half what we kept of the crop was stored away. Under these conditions the wasps were helpful ; but thick gloves were necessary when gathering the apples ; you never knew when ten or a dozen would come bundling out of a fruit on which you laid hand, for they are sociable, pacific creatures among themselves and prefer to dine in company. The only thing to be said in favour of the wasp is that he gets up late and goes to bed early ; this is not to say that apples may be gathered without risk of

stings in the hour after sunrise and that after sunset ; for reasons best known to himself the wasp prefers to make one of a sleeping party inside some apple, as you will find if that apple be disturbed. Whether this dormitory is chosen in order that the sleepers may be on the spot to begin eating again in the morning without loss of time, or because they simply do not feel equal to the flight back to their nest I will not decide, but believe the latter explanation correct. Yesterday afternoon, with due precaution, I plucked an apple in which wasps were hiving ; the first to emerge, evidently the latest arrival who had not had time to take more than was good for him, flew away ; of the twelve who followed not one tried to fly ; they staggered out and fell on the grass ; drunk and incapable to a man—wasp, I should say.

When a swarm nests in the ground they can be dealt with effectually, but a nest under the tiles of the house defeats us and we do what may be done with wide-mouthed jars of beer and sugar. These attract many but they attract also other insects that should not perish, the privet hawkmoth, for example, which is harmless and decorative outside the jar and an obstacle inside. It drinks too much and floats helpless, offering an ark of refuge to the wasps who climb on the burly body, drink their fill and go their ways.

Those who contemplate establishment of an apple orchard may like to know that the Bramley Seedling and other hard apples of the cooking sort are disdained by the wasps, also by starling and blackbird while any sweet varieties remain. The kinds these like best are those we like best—Irish Peach, Miller's Seedling and Worcester Pearmain. Left to work their will, wasps are less wasteful than birds ; once the rind has been bitten through



INTEMPERATE WASPS

they will, if they find the fruit satisfactory, revisit it and gorge till that rind hangs a hollow mockery on the twig ; either deceptively plump or shrivelled like unto a medlar ; the latter a sorry spectacle. The condition when the wasps have done with it depends on the variety.

It is sad to see how insects over-indulge ; the red admiral butterfly, for example ; when the greengage plums are ripe that most beautiful of its kind throws discretion to the winds, sucks in more than it can carry and becomes helpless. Bees too : Dr. Watts could not have been on really intimate terms with the bee or he would have hesitated to hold it up as a model to children. There was no excuse for the eminent moralist, as this weakness has long been known to bee-masters. Hear what one of the seventeenth century has to say about the King—who of all in the hive ought to set a good example ; bees, you will remember, were governed in those days by a king, not a queen, bee :—“ The Bees seek out their King if he lose himself, and by a most sagacious smelling sense never cease till he be found out, and then bear him upon their bodies if he be not able to flie.” This is delicately put, but can we not read between the lines ?

His Majesty was missing ; hot was the summer air
From out the hive streamed courtiers who whispered darkly,
“ Where ? ”

An aged bee stopped sniffing ; then, said he, “ The case is plain ;
His Majesty has lost himself. The nectar cup again !

“ My most sagacious smelling sense informs me we should seek
His Majesty about the place where he was found last week.”

So the courtiers went a-seeking ; they found him ; and they said,
“ To fly he is not able ; let us bear him home to bed.”

The ant, that other model of all children should be, is

every whit as intemperate as wasp, bee, moth or butterfly; let ants discover one of our bottles and in half an hour it will contain dozens; wasps sometimes drink with discretion, the ants never; they have no self-control and therefore perish. I am inclined to think that a wasp of superior sense profits by what he sees on alighting; the sight of two of his kin, personal friends of his own, it may be, locked in a close embrace, each striving desperately to climb upon the other, offers, one would suppose, a warning not thrown away on that new arrival; and some time misspent in observation of proceedings leads to the belief that that wiser wasp takes it to heart and lives to sting another day.





CHAPTER SIXTEEN

Water rat. Water shrew. Long-tailed tits. Kingfisher. The halcyon. Green woodpecker. Crossbills. Thames swans. Birds in drought. Snipe. Domestic geese. Danubian salmon. The Thames formerly a salmon river. The Tyne still a salmon river.

CHAPTER SIXTEEN

THE shade on the river bank on a warm afternoon encourages indolence, if not sleep ; but when you open your eyes and the shadows are lengthening there is more than enough to keep anyone awake. That water rat gnawing the rind of a prostrate reed had only just begun when I woke, for he had not devoured an inch of it, and he eats in mannerless fashion as though in haste. I lighted a pipe and watched him from a distance of about five paces ; the way that small animal guzzled—no other word will do—was amazing ; he never once lifted his head while eating his way along that reed, and stripped fully thirty inches in five minutes by the watch.

I have a weakness for water rats. They are so attractive when dining off some small item with which they sit up, squirrel-like, to hold in their fore-paws ; and, with luck the doe may be seen carrying her young to safety in her mouth, cat-wise. As a rule the water rat is strictly vegetarian ; but he has been charged with the slaughter of toads, a grave offence in the eyes of one who has a garden, and it is to be feared that the charge rests on evidence hard to shake. The evening is the best time to see water rats abroad, though on waters deeply shaded and little disturbed they are active long before the sun is low, and seem to know themselves safe in the water, for he who moves quietly can come to very close quarters with them on the margin of stream or reed-bed.

For long I have waited to see a water shrew, that pretty little, shy little beast, dweller in the bank of river or pond. He avoids the eye of man who, only if the fates are kind, may see him swimming best pace to hide in his burrow. A young one found dead on the mud puzzled me for a time ; it looked like a water shrew, the black of back and flanks sharply divided from the white of the belly, and yet it lacked the distinctive long nose. Was this a new species of *sorex* thus late ; a brand-new species to add to this book ? It was a thought that thrilled. Then, turning it over to see if the cause of death might be revealed, I remembered—water shrews are born with blunt noses, that sharp proboscis developing only as the animal grows up. The thrill faded away ; I tossed the dead youngster into the river and a passing duck rushed at and ate him. These water shrews are said to be as voracious as moles, eating worms as well as aquatic insects, frogs' eggs and minnows. Some pisciculturists view the species askance ; they suspect it of devouring the ova of trout.

Out of that old willow flies a long-tailed tit ; a second, and a third, a few feet behind, and more—they file away from that tree and string out to another old willow on the bank, their dipping flight rather like that of the green woodpecker. This is September, and those tits were probably hatched out in May ; yet the whole brood of ten still remain together ; long-tailed tits must be endowed with strong family feeling ; you do not find the brood of any other passerine bird keeping together thus after they have full possession of their wings ; they separate and go their several ways.

There flies a kingfisher ; a bird of solitary habit and always in a violent hurry, if he be not perching statue-like on a twig over the water watchful for the passing min-

now. Rarely are two kingfishers seen together ; though as I write comes to mind the letter Mr. E. W. Minter wrote to the *Morning Post* in August of 1930, saying that while fishing the Dove in August of the previous year two birds alighted close to him ; one perched on the end of his rod, the other on a bough not three feet away. There are several instances of kingfishers thus perching on rods, oblivious to the presence of man at the butt end. Has anyone ever seen kingfishers engaged in courtship ? It would be a pleasing sight if the cock displays his beauty as does the chaffinch and some other brightly hued birds.

Legend is silent concerning this bird's preference for his own society, but explains his habitual haste : he was one of the first messengers chosen by Noah to despatch on the errand ultimately given to the dove ; and, rejoicing in his release from the Ark (uncongenial quarters for him) he forgot why he had been sent out until dusk fell ; then recollecting his mission he set off in a hurry seeking first the dry land, then the Ark ; and finding neither has been seeking in desperate haste ever since. The sight of humanity stirs an uneasy conscience, for which reason he starts off best pace the moment he sees man or woman. Returning to sordid fact, parent kingfishers are as hard-hearted as robins ; when the brood can fly they are hunted away remorselessly to seek their own living with as little delay as may be.

Mystery hung about the bird in an elder day. It was thought that there existed a mutual understanding—a “natural regard”—between the kingfisher and the winds ; and if a dead one were hung up by the bill the body “by an occult and secret property” turned the breast towards the quarter whence the wind would come. Our ancestors had rare faith in occult and secret properties, and indeed

it is hard to know how they could have done without it. Sir Thomas Browne was at pains to test this interesting theory ; he suspended first one, then two dead kingfishers with untwisted silk to give them a fair chance ; and the result of his experiment justified him in saying (*Vulgar Errors*) that the popular notion was “ a conceit supported chiefly by present practice, yet not made out by reason or experience ”. Sir Thomas also revealed the difference between the halcyon of the ancients and the kingfisher, theretofore held to be the same bird. The former, an adventurous fowl, certainly made a nest of bones like the latter, but this it launched upon the sea as an ark, thereon to lay its eggs and rear its young family under special dispensation of the gods who forbade all winds lest they disturb the nest until the young halcyons had flown. Now, as our kingfisher makes its nest of bones in a hole in the river bank, quarters far more secure, Sir Thomas concluded that kingfishers and halcyons were not identical ; he had too much respect for Pliny who had described the methods of the halcyon to assert that he was wrong, so he decided that our bird was “ not a true halcyon ”.

There is a woodpecker tapping in one of the old elms 50 yards back from the river ; those old trees must be excellent hunting grounds for his kind and useful schools for the rising generation ; the young woodpecker, naturally, is awkward at his business ; I watched one a few months ago, attention caught by his lack of ease on the tree-trunk ; at first it looked as though he were disabled in some fashion, but closer inspection showed the barred breast which explained that youth and inexperience accounted for his struggles. He looked as little at his ease against the rough bark as does his father when the latter



YOUNG GREEN WOODPECKERS

ventures to earth in search of—what? I have never discovered what it is that brings the green woodpecker down to hunt about the lawn like a thrush. The bird is said to eat ants, but after watching him industriously probing the turf, careful search failed to reveal an ant, or the trace of one. Why then these terrestrial excursions made at such obvious inconvenience to one as ill equipped for walking as a puffin? Yet the woodpecker regularly descends, to hop about like some gouty old gentleman, making holes in the lawn. An old naturalist says that woodpeckers (also storks) “do in the old age of their parents nourish and feed them”. They have abandoned this commendable habit. The bird is not common hereabouts; it prefers the oak, and this is essentially an elm country; we have few oaks. I do not know the name of him who hit upon the idea of building ships of iron, but Britain owes that benefactor much in the preservation of countless oaks that must otherwise have gone to the shipbuilders’ yards. The man deserves a monument in Westminster Abbey.

Ever since a dead two-barred crossbill was found in the garden Hope has persisted; but another of the species has never been seen, though the existence of a copse consisting principally of pines not more than half a mile away might offer attractions to this bird. A visit from its larger cousin, common in Ireland, is too much to expect, which is regrettable; peculiarly brave, it shows little fear of man, and allows nearer approach than most. Mr. Richard Usher, joint-author of the *Birds of Ireland*, once stirred up a sitting crossbill gently with his stick; she bit it without attempting flight. Even a nestling he was rearing in an open cage (that the parents might feed it), would try and bite his fingers. An unamiable bird; the

name seems doubly appropriate, describing the mandibles so oddly crossed at their tips and the bird's disagreeable temper. The idea that a beak thus inconveniently designed accounts for the other defect must be rejected.

Here comes a swan sailing with his usual majestic air as though the river belonged to him. Contact with man has affected the swan for the worse; grace and dignity veil a character impossible to realize without pain to him who would admire the swan. Eat your lunch on the bank if you would have him display his true colours; his crop is the seat of his emotions; show the bird prospect of food, and look for grace and dignity! No sooner do you break bread than every swan within range, if not already cadging on somebody else, is churning ripples straight in your direction; haste and anxiety are undisguised; each swan, fearful lest another arrive first, comes on under full steam. Thus, till they are within a couple of oars' length; then they dissemble; not one has the candour to admit why it has come; the whole lot pull up suddenly and hang about with transparent assumption of indifference; after pretending that they came merely to see how you are getting on they begin to give hints, making as if to gobble stray corks as they dance on the water. Now throw a crust; all dash and grab at it; and the happy winner starts to souse it, as if he thought your hands were dirty, while his friends sidle round and, keeping one envious eye on the lump sinking down his neck, fix the other, expectant upon you. Then remark him seeking food on his own account:—

How can the bird with any grace
Turn upside down to feed
Startling the gudgeon and dace
Among the river weed?

That hinder end which points the skies
With scuffling legs to aid.
The passing boy shall not despise
The target thus displayed.

No ! After making acquaintance with the wild swan in Ireland the Thames bird is no subject for admiration save externally and in repose.

Many birds haunt the river-side in a summer of drought ; the earth poached by cattle offers better chances of yielding a worm. Yet brief experiment satisfies me that they do not suffer during prolonged dry weather ; while the ground was hard as if frozen and it seemed that some birds at least must be at a loss to find a living, the table was brought out and supplied as in winter, general patronage expected. This was not bestowed ; the food was ignored by all except (of course) the sparrows, blue tits, one great tit and a robin ; and these took only as much as might be regarded as polite acknowledgment of hospitality. It was gratifying to discover that the birds could take care of themselves, and, not wishing to encourage dependence on doles I put the table away again.

In winter a snipe occasionally pays this field a visit ; I have put him up from the ditch which marks the highest point of the floods ; when the waters retreat there is always a nice deposit of mud in that ditch which appears to have been a mill leat in the long ago ; and in mud the snipe looks for nourishment ; it is wrong to write " looks ", for " listens " is the better word. The ear of the snipe, that of the woodcock also, is curiously placed, being below and a little forward of the eye ; and it is suggested that the ear thus situated enables the bird to hear the movements of the worms on which it so largely subsists. It is difficult to imagine a worm making noise

enough to be heard by the acutest hearing ; but when a snipe plunges that long bill of his into mud it may acquire a telephonic value. The ear is merely a fold of skin : it is better developed in the owls than in other birds.

Half a mile lower down the river, between Long Wittenham and Appleford, is a low-lying field which when under water is the chosen haunt of gulls, blackheaded for the greater part. This seems to be the highest point they reach on their winter journeyings up the Thames. I have never seen them at Culham, a mile or thereabouts above this village.

Here come the geese from the farm, sailing up the river at their leisure. To the nurse of my infancy is owing the information that when a goose spreads her wings and stretches her neck she expects a witch to come and mount on her back for a ride through the skies. I think that nurse believed it ; I did ; and, opportunity serving, would hang about the village pond hoping fearfully to see at any rate one witch in red cloak and peaked tall hat come and enlist the services of a goose. Eventually I was driven to the conclusion that witches came only in the night when I was abed. The old goose-lore is forgotten now ; it is doubtful whether even in those eastern counties once famous for goose-raising could be found anyone to warn you against setting a bird on eggs while the east wind was blowing ; the eggs would need five weeks to hatch in place of the orthodox thirty days if you did. There was something uncanny about geese, apart from the favour with which they were regarded by witches. Camden says that in the North Riding of Yorkshire there were certain fields in which the wild geese, vast flocks of them, were wont to settle, falling down suddenly upon the ground, to the great amazement of be-

holders ; their preference for those particular fields being attributed to the sanctity of St. Hilda. How the merits of that estimable lady brought about this phenomenon the old historian omits to tell us. It may be suspected that those certain fields offered substantial attractions to hungry geese.

We had Little Owls here in 1931 and 1932 ; and in 1933 they were neither heard nor seen. Argument rages about the person of this bird ; those there be who ban him for nuisance ; others who maintain that he is not only harmless but beneficial. Unless forcible acclimatization constitutes a British bird the Little Owl is an alien. Mr. Meade-Waldo established a number on his property in Kent as long ago as 1874, and more in subsequent years ; and the late Lord Lilford, keenest of ornithologists, did the same on his estate in Northamptonshire in 1888 : and from these stocks the species has spread over practically every county in England. His accusers declare the Little Owl a destroyer of young gamebirds ; Counsel for the defence urge his consumption of mice and other vermin ; and it is hard to decide which side is right, inasmuch as evidence both for and against the prisoner at the bar is forthcoming in plenty. His appetite for mice is admitted by the prosecutor, who rests his case on the fact that the remains of young partridges and rabbits have been found in the owl's possession by searchers of nests ; and defending counsel are obliged to confess that their client, who hunts by day as well as by night, kills various birds we should prefer he left alone. As usual, the truth lies betwixt and between, as with that vexed question of the rooks and young chickens ; some Little Owls do slay young gamebirds while others do not.

Innocent or guilty, his reputation is so tarnished that

he has been specifically excluded from the benefits of the new Act for the Protection of Birds, and might be expelled as an undesirable alien if we knew how to set about it. You may catch him, if you can ; put him in a cage and sell him, if you can, to anybody fond of Little Owls ; and as such persons are few his sentence of outlawry will, it may be surmised, leave the bird with mind and, what is more important, body at ease.

Here comes Mr. B——, rod in hand ; Mr. B—— is the most assiduous and successful of our local fishermen ; a man of cheerful countenance he looks more than usually pleased with the world this evening ; the reason being his sight of them new salmon, two of 'em, under the railway bridge. He refers, of course, to those Danubian fish, known as huchen, which have been established in the Thames. Unlike the salmon the huchen passes its life in fresh water, and it is hoped that the stranger may settle down as a breeding species in our river. Mr. B——, charged to be sure and let me know when—if—he catches one of them new salmon, departs with good wishes for his evening's sport.

In Georgian days the Thames was the resort of the true salmon ; and the reason why the fish should have deserted the river is a question once much debated, the generally accepted view being the dirtiness of the estuary, befouled by sewage, which deterred salmon from entering. There is, however, room to doubt whether this is the correct explanation. In the first quarter of the nineteenth century the population of London was something over one million and the villages between London and Oxford were really villages and not the over-built summer resorts they have become in our time ; the sewage discharged into the river then was no deterrent ; in course of the



A LITTLE OWL WHO CAME DOWN MR SHEPHERD'S CHIMNEY

years 1780 to 1821 fish to the number of 483 were taken at Boulter's Weir, which appears to have been one of the best reaches ; the season of 1801 was very productive, the total being 66 salmon. Cliveden Springs was also a good reach ; in 1780, 50 were taken by a single fisherman. Incidentally, I have not discovered any mention of salmon angling on the Thames ; it seems to have been given over entirely to nets. The last salmon was taken at Boulter's in 1821 ; the river could not have been any dirtier then than it was twenty years before, since the great extension of London only began about the middle of the century ; it is evident that we must seek another explanation of the absence of salmon.

Is it not most probable that the erection of locks accounts for this ? The Thames Commissioners obtained in 1771 an Act of Parliament authorizing them to construct locks at various points above Maidenhead (or above Boulter's Weir, which is practically the same thing) ; and this they proceeded to do ; salmon, as already said, were caught at Boulter's for many years afterwards ; and be it noticed, there were no locks lower down for a generation to follow. Then, during the years 1810 to 1815 the Corporation of London built locks from Teddington upwards ; and six years after the last one had been constructed the last salmon was taken. Thus it appears that the fish ceased to enter the river long before it was described as "that filthy conglomeration of impurity" (*Daily Telegraph* of 3rd July 1858). It is not suggested that its waters were of crystal clearness fifty years before ; but they were not so foul as to prevent salmon from entering. It is far more probable, on the face of these facts, that locks which forbade the fish to reach the gravel spawning beds of the higher reaches explain why they abandoned

the Thames. If the two authorities who then governed the river had bethought them to put in salmon ladders beside the locks the fish might be there now.

The case of the Tyne seems to prove it; the state of the waters for a mile below Newcastle and Gateshead has been described as "filthy"; and it will not be suggested that salmon pass through such foul water in the comfortable certainty of finding purity beyond. They do pass through it; and are caught at Hexham 30 miles or more above Newcastle. There are no locks on the Tyne; the fact is significant.

CHAPTER SEVENTEEN

Otter. Salmon fearful of. Fight with dog. A strange holt. Badger. Ancient misuses of. Domestic arrangements. Badger and fox. Foxes in the Welsh hills. Holinshed on fox and badger. Foxes and fruit. Pine-marten.

CHAPTER SEVENTEEN

THERE are, or were until recent years, otters in the Thames, but we are never vouchsafed a sight of them in these reaches ; if the animal did patronize the river here it would be an event to see him as his nocturnal habit is against making his acquaintance. Otters are seldom seen by day unless disturbed by hounds ; the late Captain Wynne Apperley, who spent much of his life in the wilds of Wales, only twice saw otters except when hunting them ; on one occasion he saw two in the River Dyssini, and was impressed by the grace of their movements as they rolled over one another in the water ; he watched them from a hiding-place on the bank, but the otters winded him, “ snuffed, whistled and disappeared ”. They are extremely shy and wary creatures. Captain Apperley did not regard the otter as a dangerous foe to salmon, long experience going to show that it confines itself to small fish, eels and frogs ; only once in ten years’ otter-hunting did he see a salmon which had fallen victim to an otter, and that was a weakly fish. Nevertheless, he found reason to know that salmon avoid the beast ; upon a day hounds hunted their quarry into a pool fed by a fall too high for the fish to leap ; and the advent of the otter so frightened them that all, about twenty in number, turned with one accord and, contrary to salmon habit, dashed over the fall fed by that pool and sped downstream “ like rats before a ferret ” (*A Hunting Diary*).

Doubtless those salmon were wise ; an incident that occurred with the Earl of Brandon's hounds proves that even when hounds are behind him the otter does not neglect opportunity ; the hunted one appeared with a fish in his mouth, hounds close up, before men manning a stickle.

He is what they call in Scotland a " bonny fighter " ; one day in November 1894 a dog, cross between collie and setter, disporting himself in the Tweed near St. Boswells uttered a yelp of pain which attracted the attention of his youthful master on the bank ; a fight was going on between the dog and some animal the boy did not recognize at that juncture. He called the dog off and she came ashore ; to be followed by a young otter, who renewed the fight, of which her foe had manifestly had enough. He pinned the dog to the ground and so clearly had the upper hand that the boy ran in and proceeded to belabour the otter with a stout stick ; whereupon the beast left the dog and attacked the boy, seizing him by the hand. An otter's bite is severe, and serious damage might have followed but for the dog, who, seeing her master attacked, came to the rescue and held the otter by the throat. Then boy and dog killed it. It is to be remarked that the dog was twice the size of the otter ; a plucky if combative beast, to pursue its enemy to the shore and there renew the attack.

If taken young those who have kept otters say they are easily tamed and show great affection for their owners. Mr. S. J. Hurley, who lived on the bank of the Shannon, kept them for many years ; they slept in his house and went fishing with him ; he declared them as companionable as dogs. They also display great affection for one another. Mr. Hurley was told an anecdote by a friend

which illustrates this : the friend shot an otter by mistake in the dusk of a winter evening and, finding the body among roots in the river next day, took it home intending to take off the skin. He laid it on the window-sill of a room on the ground-floor to await the knife. About midnight he was wakened by "a most weird and unearthly wailing", and got up; (brave fellow! Some would have shrunk under the bedclothes, thinking it was the banshee). He went to the window and found standing over the dead one on the window-sill an otter which was uttering the piteous cries. He concluded that the visitor was the mate of that he had killed.

Dwelling as he does in a "holt" or hole in the river-bank whose entrance is below water, the otter must spend a goodly part of his existence in what we should consider damp discomfort; but individuals have shown a taste for warmer quarters. Mr. Edward Ker described in the *Field* of 18 July 1874 a very unusual lutrine retreat: on the bank of the Lagan, near Lisburn in the County Down, a pair of otters had their abode within easy distance of a cottage from whose cow-house a drain went down to the stream. The spraints of otter were observed about the mouth of that drain, and a terrier was put in; with the result that a lively scuffle ensued, proving the otters at home; so the drain was opened up, and found to pass under the hearthstone of the cottage living-room—as is usual in Irish cottages there was no grate, fire being built on the stone—and below that hearth was the bed of the otters, who thus enjoyed warmth enough to satisfy the most sybaritic of cats. The animal's tail (technically "pole") is peculiarly strong at the junction with the body, and he makes what any other beast might call an unorthodox use of it, i.e. to poke fish from their retreats

under rocks and other refuges. With a skin exceptionally tough he has a skull so thin that a smart blow with a stick will kill him. He is abstemious; Mr. Arthur Stringer, whose book *The Experienc'd Huntsman*, was published at Belfast in 1714, observes that if an otter kills a trout seven or eight inches long, or a little eel, he most commonly leaves part of it on some stick or stone or on the bank where he dined. Mr. Stringer once picked up a trout when an otter had done with it, and found that not an ounce had been eaten; but of course it may be that this fish had not constituted the whole of the animal's dinner.

The badger is another animal of whom we know little in these parts, though quite lately I was told how a motorist had run over one on the road between this and Reading. The badger prefers wilder country than we can offer, and the Downs are too open for his taste. From very early times he has been man's victim. This from *The Leechdoms, Wortcunning and Starcraft of Early England*: "Do off the teeth from him while yet quick or alive, those he hath biggest." Then you were to invoke . . . the Creator ("There is no need", says the Victorian translator, a man of strict views, "to imitate the irreverence of the text") "and wrap those teeth in a linen rail or garment, and work them in gold or in silver, and they may not touch the body". This was a valuable charm against evildoers, storms and pestilence. If the foot of a live badger were chopped off with the same invocation and kept about the person, victory was the wearer's in whatever fight or conflict he engaged.

In course of time men ceased to cut him up alive to make talismans, and found pleasure in baiting with dogs this "very melancholy fat creature who sleeps inces-

santly", as Stringer describes him; a suitable hole being dug and a stake firmly planted therein the badger was fastened by a chain passed through his tail, and being thus secured dogs were invited to try and drag him out to the extent allowed by the chain. The dog that succeeded in "drawing" the badger was a local hero. In towns this sport (?) was artificialized, a box of special shape being substituted for the hole in the ground, one half being at a right angle to the other half, in such wise that the badger must be dragged round the corner; or a barrel might be used.

Now essentially a beast of the night, there is some reason to think that he was formerly diurnal of habit; certain it is that tame badgers walk abroad by day and seem to enjoy it, following their owner like dogs and hunting by the way. In the wild state he rarely comes abroad while it is light, which suggests that the nocturnal habit has been developed as a measure of self-protection; but it is impossible to reduce badgers and their habits to rule. Sir Alfred Pease, who has written a most interesting and informing monograph on the beast, describes his domestic arrangements: a badger may live in harmony with the spouse to whom he is faithful for life; he may live on amicable terms with a bachelor friend of his own age; and from the fact that seven adults have been seen issuing from the same "cete" or earth it may be the case that a number club together; I discard the suggestion of a lady to whom this fact was mentioned, that the owner of that cete had been giving a party, and these seven were his departing guests. It is not wise to interfere with a badger, even in the way of kindness; he is apt to misunderstand attentions, and so powerful are his jaws and teeth that if he lays hold of a man's wrist that

man is like to lose his hand. Left to himself he is inoffensive.

There is a false idea that his abode is unsavoury ; as a matter of fact it is scrupulously clean ; for one thing, he turns out his bedding every spring and collects fresh ; which is done by no other animal. If a disagreeable smell does cling about a cete, the offender is a fox, towards whom the badger exhibits indulgence. Some cetes are of great extent, a maze of tunnels and passages at varying levels, the work of generations of badgers ; and in such a family of foxes may find lodging without disturbing the owner ; but there are others less spacious, in which foxes, evil-smelling and ignorant of the elements of domestic hygiene, cannot be welcome guests ; and this difference of habit and behaviour, it is suspected, gives rise to trouble between badger and fox-lodgers, causing the former to be branded as a vulpicide. Thus : the badger complains to the fox family who have taken up their quarters in his abode that their manners are sadly lacking ; the foxes decline to amend their ways and ignore the notice to leave given by the host whose patience is worn out. Then, and only then, I take it, does the badger adopt strong measures ; kills the cubs and gives the fox and vixen to understand that they will share the fate of their children if they don't at once pack up and go. I may be all wrong concerning the procedure ; but it is certain that badgers do kill fox cubs, and probably they do so only under such grave provocation as sketched.

He would eat the fox cub he had slain, for he is omnivorous, his diet ranging from rabbit or fieldmouse to fruits, roots and insects ; his method of dealing with the prey is always the same ; he flays it neatly, turning the skin over the head and leaving it inside out. One would

imagine that a hedgehog must give a badger with the most callous of noses some trouble. It is said that the beasts are growing more common ; there are landowners who will not allow badgers to be killed, all honour to them.

Foxes pay us a furtive visit on occasion ; doubtless they would come more frequently were the country less open, but inasmuch as poultry rearing is an industry in the country round no complaints are heard of their neglect of us. The vixen varies her domestic arrangements as circumstances dictate ; in the Welsh hills she emulates the judicious practice of the brown hare, and in the words of an old writer “ keeps not all (her young) together that some may be preserved ”. This habit of distributing her cubs in different places is the outcome of persecution by the shepherds, who wage merciless war against the fox as a slayer of lambs, and have done so for generations ; the hill fox, be it noted, is a bigger and stronger beast than him of the lowlands. The men dig out and destroy foxes, old and young, whenever they can, but the race endures in spite of all endeavours to exterminate it.

So it was in old days, witness that passage in Holinshed's chronicles :—

“ We have some, but no great store. Certes, if I may freely say what I think, I suppose that foxes and badgers are rather preserved by gentlemen to hunt and have pastime withal at their own pleasure, than otherwise suffered to live as not able to be destroyed because of their great plenty. For such is the scarcity of them here in England in comparison with the plenty that is seen in other countries, and so earnestly are the inhabi-

tants bent to root them out, that except it had been to bear thus with the recreations of their superiors in their behalf it could not otherwise have been chosen but that they should have been utterly destroyed by many years ago."

Which assertion is no doubt correct ; goodwill existed between peasant and overlord in Elizabethan times.

I have never seen in this country an approach to a fox's earth so wisely designed as that found at Castletownshend. Near the village where the poultry are a standing invitation to foxes, is a path along the top of a low cliff, and on the land side of that path is a steep bank densely clad with bushes. Only by chance was the approach revealed ; coming quietly along the path one morning I disturbed a fox as he lay basking in the sun on the sea side. He was up instantly and vanished into the bushes on the bank ; he "threw a lep" into them, as in haste, and I thought nothing of his mode of entry till, closely examining the spot where he disappeared, I could find no trace of his pads on the dry earth ; he had jumped into the cover to avoid leaving tracks. Then I found from that point half-way up the bank a well-trodden path under the bushes leading to the earth, about twenty-five paces away ; so perfectly concealed was that fox's avenue to his door that though I had passed that way fifty times I had never discovered it, though usually on the look-out for birds. The plan recalled that of the skylark who, after his hymn in the skies, never alights near the nest but comes to earth twenty or thirty yards from it, and walks home.

Æsop has been criticized for that he made a sensible fox decide he did not want grapes out of his reach, on the

ground that foxes do not eat grapes. They do not get the chance in England, but unless the Rev. W. B. Daniel was misinformed they are "immoderately fond" of them, doing great damage among the vineyards in France and Italy (*Rural Sports*). They grow very fat on this diet, and the owner of the vineyard seems to have got some of his own back as, says Daniel, "the flesh at that season is said to be good". In default of grapes the fox eats blackberries; Captain Wynne Apperley noticed that bramble bushes were stripped of fruit as to their lower branches, and as this was observed in a solitary hill district whither nobody went unless following hounds he was fain to discover where the blackberries had gone. The fact that only the lower sprays were denuded gave him the clue; he examined the billets, droppings, of foxes and found the betraying seeds. Captain Apperley also mentions a tame fox which ate apples greedily.

To Mr. Daniel is owing the information that fox and dog readily pair; that in many places in the north of England it is the practice to tie up a slut where she may be visited by a fox, and that the pups of such a union "are sufficiently obvious, by most if not all the whelps bearing a strong resemblance to the fox, in their sharp noses, prick ears, long body and short legs; and these hybrids are much esteemed for their handiness in driving cattle. They bite keenly, are extremely active and playful, and are very expert at destroying weasels, rats and other vermin."

One of our most beautiful animals, the pine-marten, is said to have increased during the War, owing to the withdrawal of gamekeepers from the coverts to the ranks. I have notes of those killed during the first fourteen years of this century; from the fact that the last is of one taken

in March 1914, I conclude that note-taking ceased with the outbreak of the War. Of the seventeen pine-martens shot or trapped five fell in Ireland, five in Wales and the rest in England and Scotland. The beasts would seem to have been very common in Ireland in past days. Mr. Arthur Stringer, an ardent hunting man, devoted a good deal of attention to them and killed numerous "marterns" in the woods about the shores of Lough Neagh. His sporting principles, sad to say, were not of the purest, for he tree'd his marterns with the aid of hounds and then shot them; which was not playing the game. He shall speak for himself:—

"A Martern is a little creature rather larger than a Cat, but smaller in the Body, his Legs are shorter but much thicker and stronger, a little head shaped like a Fox's, very short Ears, a Tail full as Long as (that of) a Cat with very long Fur or Hair on it. The Martern is coloured Black or rather inclining to Brown, but the Blacker the better the Fur, the underside of the Neck is white Yellow."

Mr. Stringer, you perceive, was no stylist; his writing errs in the direction of the breathless, but in his use of capitals he only followed the usage of his time. Feeling sure that he did not mean to assert that the marten's tail was as long as a cat I have ventured to insert those two words in brackets. If his style be defective he knew what he was writing about, and we can forgive these trifling defects of diction. Let him proceed:—

"A rank wood is their Province, for they breed in the Tops of hollow Trees and continually lie in such places in the Daytime; they are very Ravenous in

Preying upon any Thing they can kill . . . the greatest part of their Food is Birds, Rats, Mice, Snails and Berries, they will not stop (hesitate) to kill Hens and Ducks or any sort of wild Fowl."

Which explains why man's hand has always been against the pine marten. Mr. Stringer adds that they breed once a year and commonly have three or four young. The animal has some of the cunning of the hare ; when hounds were after one he would run 6 or 7 feet up a tree, then down the other side of the trunk and do this on nine or ten trees in succession. If frightened out of the tree in which he was found and there was no other into which he could leap, the marten would drop from any height on to ice or the hardest ground and run straight away, possibly for two miles before he sought another tree refuge. Mr. Stringer often hunted martens by moonlight ; then you were to "stand so as to try all the Tree between you and the Moon, and if you find him so, the Fur glistereth all like silver, then shoot him". Martens must have been numerous in the woods the author hunted, for devoting two or three hours of a night to his sport he often killed two or three.

The pelt was the prize, "the Blacker the better"; were pine martens more common their skins would soon become articles of commerce, so soft and beautiful is the fur ; and, in winter, long.

Captain Wynne Apperley, who hunted his own harriers in Wales many years ago, says that the scent of the pine-marten has irresistible fascination for hounds ; "the steadiest old line hunter hunting fox, hare or otter will leave it at once and take up that of the marten should it cross that of the other. They will leave anything to hunt

him.” Possibly this preference has bearing on the distinction given the pine-marten as the “sweet mart”, whereas the polecat is known as the “foul mart”, or “fou’ mart”.





CHAPTER EIGHTEEN

Birds in the London parks. The Hudson Memorial. Animal friendships. Storers of winter food: long-tailed field-mice. Resourceful short-tailed field-mice. The food-concealing habit. Partial hybernation. Bird and beast in snow. Effects of light on beast, bird and earthworm.



CHAPTER EIGHTEEN

THE London parks are in a fair way to become unofficial bird sanctuaries. Their avine population, it may be guessed, consists of migrants who, passing over the city, have discerned oases which invite descent and rest ; otherwise, it would be difficult to account for the presence of species, other than the gulls, who have settled there. Such birds are wise, for in the parks abideth Peace and Plenty. The gulls, of course, making their winter way up the Thames, turn aside to see what they may see on those inland waters ; and the discovery that sprats reward the gull who adventures to the Round Pond results in regular attendance—in temporary residence.

Birds grow tame in the parks ; there used to be, and perhaps still is, an old gentleman who made a practice of feeding sparrows near the Achilles Statue ; a number of them would take food from his hand, perching thereon. Some among the blackheaded gulls that haunt the Round Pond have grown to realize that humans are friends and will take a morsel of fish from the outstretched hand. Not long since, so late in the morning as ten o'clock, I saw a heron rise from the margin of the Round Pond and wing his way westward ; and at that hour there are people about. The presence of a bird so shy was a thing to remark. The dabchick nests on the island in St. James's Park and, the keeper says, has done so for years past, disappearing for months but always faithful to its breeding-

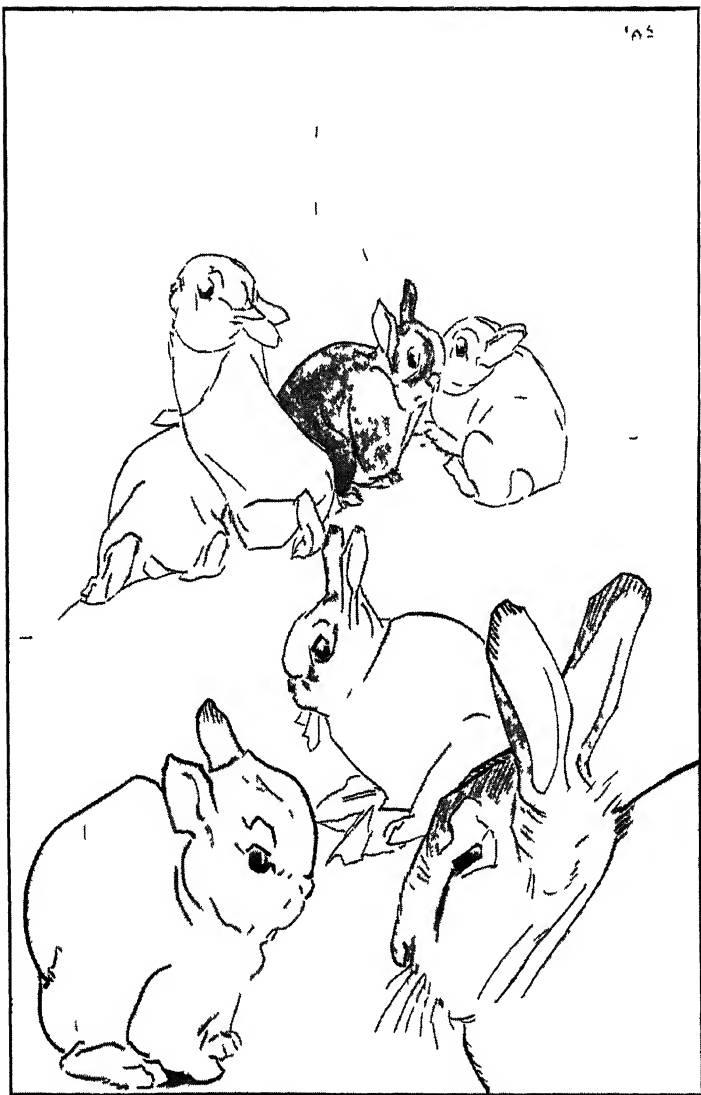
place. One afternoon in Kensington Gardens near the top of Queen's Gate I saw on a rail a hen gold-crest; so unafraid was the tiny bird that it might have been touched with my stick; the absence of red feathering on the head proved the sex. By the way, Macgillivray calls it the "Gold-crowned Kinglet"; and as Science declines to grant it admission to the wren family we might well resume the old title; which becomes the bird.

Glancing through the late W. H. Hudson's *Birds in London*, I see that the gold-crest is not mentioned; very little indeed escaped that keen eye, so it may be concluded that the bird is a rare visitor to Town.

Reference to Hudson tempts a suggestion concerning that Memorial which some of us are not sufficiently advanced in matters artistic to admire. I would not have it down; let the thing be turned round to permit use of the blank side, upon which to engrave the names of naturalists in whose company Hudson would have been proud to find his own: let us see; follows a brief list of a few to begin with; there are others whose names deserve immortality, but these will serve to illustrate my suggestion:—

John Ray	.	.	.	.	.	1627-1705
Francis Willughby	.	.	.	.	.	1635-72
George Edwards	.	.	.	.	.	1694-1773
Gilbert White	.	.	.	.	.	1720-93
Thomas Pennant	.	.	.	.	.	1726-98
Francis Orpen Morris	.	.	.	.	.	1810-93
Thomas Edward	.	.	.	.	.	1814-86
Richard Jefferies	.	.	.	.	.	1848-87

By this simple step towards simple justice we shall save posterity from the error of assuming that Hudson was the only field-naturalist worthy of remembrance. A path (narrow) might be made round the Memorial for the con-



FAMILIES RESULTED

venience of those who wish to contemplate the bas-relief with which the side now exposed to view is—er—embellished.

That was digression ; return we to our muttons.

The rabbits that share that enclosure with herons have not yet learned that Man, when a park-haunting animal, is harmless ; but it may be hoped this will be revealed to their intelligence before years have passed. The wood-pigeons, bad luck to them, very soon made this discovery.

Taken young the wild rabbit is easily tamed, and makes the liveliest of pets. In their youthful days Mr. Shepherd's boys had a doe which allowed herself to be led about with a collar and string ; she was fearless as any hutch-bred rabbit. Twice she gnawed her way out of the hutch at night and disappeared for a time. Families resulted from these excursions.

Animals make friends with individuals of other species occasionally, so why not with ourselves ? The cow seems to possess peculiar attraction ; at my old home in the County Cavan a single cow was kept for family use ; upon a day appeared in the field with her a Japanese stag ; nobody knew whence, much less why, he came ; but he arrived and stayed, having conceived an affection for the cow. While she was at pasture that deer would be at her side or within a few yards at most ; when the man brought her in at night the deer followed and stayed by while she was milked ; and abode with her through the night. The herdsman used to shut the gate when he brought out the cow, first with the intention of keeping the deer afield, later for the sake of seeing him leap the wire fence.

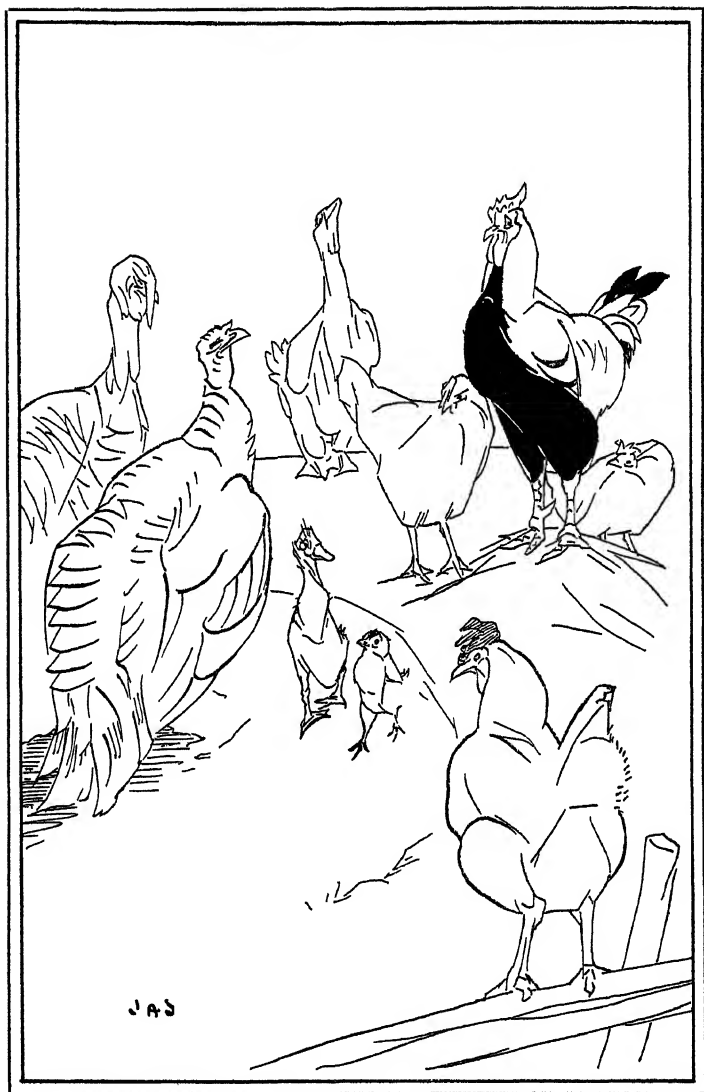
A case of attachment between a sheep and cows occurred on a farm near Sidborough in Devon ; a ewe cut dead all the rest of the flock and took up her quarters

with a small herd of cows, feeding with them and joining them when taken home in the evening. Sheep cannot be exhilarating companions, but it may be doubted whether the society of cattle is more stimulating to the most intellectual of ewes.

As it is not known whether in the following case the cow adopted the lambs or the lambs the cow, it was not included with those examples of aberrant maternal feeling mentioned in a former chapter. The cow accepted, let us say, two lambs and gave them nourishment; they had lost their dam, and the two orphans found in that cow an acceptable foster-mother.

A case of adoption by a cow in Maine, U.S.A., was reported in *Land and Water* of 29th July 1893; a farmer named Francis Chase who pastured his herd in a field open to the wild, found one morning that a young cariboo calf had attached itself to one of the cows, who appeared quite content to nourish it. This was not altogether strange as shortly before her own calf had been killed, but the puzzle was, How came the wild young cariboo to be there at all? Mr. Chase came to the conclusion that the dam, having two calves, had mingled with his cows, and one of the calves, straying from its mother, had adopted the cow in default. Anyway, both parties to the arrangement were satisfied.

In his *Rural Sports* (Vol. 3) the Rev. W. B. Daniel gives an account of the friendship struck up between a raven, "Ralph", and a Newfoundland dog at the Red Lion, Hungerford, in 1808. The author does not tell us whether there was any display of regard between the two before the dog met with his disabling accident; but after the latter had been run over, sustaining a broken leg, the raven made him his peculiar care as soon as he was tied



WHITHER THE CHICKEN TROTTED THITHER THE
DUCKLING WADDLED

up in the inn stable. "During the long time he was confined Ralph waited upon, and took him provisions daily"; and, being shut out of the stable one night, Ralph pecked so industriously at the bottom of the door that when found in the morning he had nearly made a hole through it.

At Mr. Pullen's farm last year there was a case of mutual attachment between a duckling and a chicken; they were about the same age, and the sole survivors of their respective broods, the rest having been destroyed by rats. The two were inseparable; whither the chicken trotted, thither the duckling waddled; if the chicken entered a coop between whose bars the stouter duckling could not penetrate it would squat outside and wait patiently for its friend to reappear. When the chicken attained to the age when its kind seek a perch at night the duckling would follow into the hen-house, sit below and gaze up with its soul in its eyes. Never in its short life did that duckling enter the horse-pond; the chicken's was the master-mind, and its place was on land, so also was that of the duckling; and it died dry-foot. What the bird would have done if spared to develop a mind of its own is a matter of speculation; there were plenty of other ducks to set example, and in time that chicken-loving duckling might have followed the lead of its kind. It was denied the chance, for the owner ate it.

A neighbour has come in bringing with her an old nest of a thrush which she found to contain nearly a handful of haws, whole, part eaten, and seeds of the same; and wants to know how they got there. The question is one often asked; and the answer is Long-tailed field-mice. One of these little beasts will take possession of

a nest and use it as a temporary larder, collecting haws therein and at dinner time sitting on the edge of the nest to eat. I think these mice give an old nest of the thrush preference for this purpose ; with its so-called mud interior like a smooth bowl, it lends itself to the uses of the mouse ; holds the haws as a nest containing a tangle of grasses, bents and feathers does not ; at least the animal would be put to trouble to pick his food out of the jumble. It is doubtful whether these larders from a winter store, liable as they are to be smothered in snow : at any rate the long-tail, like other mice, assembles a winter stock of food underground ; the rook *may* find it if the burrow be too shallow, but on the whole it is safe. Mr. Douglas English, who has devoted much attention to the doings of our small mammals, once excavated the winter retreat of a long-tailed field-mouse ; it was about 16 inches below the surface and had three entrances leading to two chambers, one of which was the dormitory, the other the larder. Mr. English found therein five mice, and the winter store consisted of 98 cob nuts ; so tightly packed were these that it was difficult to dislodge them with the fingers. The nuts had not been used, as was proved by the absence of empty shells ; and as Mr. English's investigations took place in spring it was clear that those nuts had been kept in reserve for a time when food should be hard to come at. All the 98 nuts were sound ; the weight would tell the mice whether a nut were good or bad (*Douglas English Nature Books*, No. 1).

The short-tailed field-mouse displays ingenuity on occasion, as witness the incident recorded in *The Times* of 4th November 1933 by Mr. Shepheard Walwyn : he had left a vessel of oats in an unused poultry shed, and the mice found it ; they appear to have eaten their fill, and then

considered the expediency of carrying off the grain to form a winter store. Discussion, we may assume, followed; with the decision that conveyance of all that desirable grain to the usual underground cellar would be a tedious and troublesome business. Some bright member of the party had, as Mr. Shephard Walwyn suggests, "a brain wave": why not let the oats stay where they were and cover them up safely? The idea was adopted; at hand lay a box of oddments which would serve; the mice got to work, and in the morning the oats were found half-hidden under nails, screws, bootlaces, medicine-bottle stoppers, collar-studs, brass curtain-rings, corks, toffee-papers, iron staples and lock-springs. Mr. Shephard Walwyn replaced these items in their box, interested to see what would happen. What did happen was that the mice went at the job again with greater zeal, and in the course of two nights had the oats completely covered with odds and ends, which included 305 boot-nails, 52 assorted nails, one 4 inches long, a steel gimlet-bit weighing $\frac{1}{4}$ oz, and five bootlaces, each 18 inches long. Total weight of the covering material over $1\frac{1}{2}$ lb. How many mice toiled at the task cannot, of course, be said; but in any case so curious a change of method in treating winter stores is well worthy of record.

The various mice who lay up winter stocks manage the business better than the squirrel who, careless fellow, hides away nuts and other eatables in all sorts of places, and forgets them; one would expect more methodical habits of an animal who is not wanting in intelligence, but in this respect the squirrel resembles birds who habitually hide away food for future use, and forget all about it. He does sometimes lack a meal in winter, for he will hang by the heels to eat the coco-nut meant for tits.

This habit of concealing and forgetting intrigues ; it is not confined to members of any one family of birds ; all the members of the *corvidæ* with which I have any acquaintance—rook, magpie, jackdaw and raven—are thus providently improvident ; I do not know if the chough does it ; and the nutcracker is such a rare visitor he may be left out. The nuthatch, member of a totally distinct Family, is an inveterate concealer of food ; he will bury nuts in soft soil, pressing them down and carefully putting morsels of soil on top ; his favourite place for the purpose, however, is in thatch. An old thatcher told Mr. O. V. Aplin that when, in the spring, he was repairing roofs and the thatching of mud walls he often found nuts. I have suspected the great and blue tits of hiding the morsels of bread and fat they carry away from the table and net bag, but have never succeeded in detecting either bird in the act of concealing the loot.

It will be urged that breadcrumbs and fat would not “keep” : true ; but if the birds forget where they put such a store it doesn’t matter whether it keeps or not. One very cold day in March—we had had ten degrees of frost each night for a week—on a thatched summer-house a nuthatch was busily probing among the weather-beaten straws. What was he seeking ? Nuthatches do eat insects sometimes, but it is unlikely that straws so ragged as those which formed the thatch could be the winter retreat of flies, and that he could expect to find any. It may be suspected that he had hidden nuts there and put them away too carefully. He did not find anything during the ten minutes of my watch on his proceedings, and eventually flew away into an old elm in whose bark he began to hunt.

Now, what gave rise to this food-hiding practice ? Is

it what may be called a "vestigial" habit—the now useless relic of one which served a real purpose in days when winters were much more severe and prolonged than they are in our time? We can believe that bird and beast were gifted with foresight that prompted them to make provision for the season when food should be difficult to find; and perhaps it is not straining the probabilities too far to assume that this instinct survives in an attenuated form, prompting birds to hide what they will not want, and does not keep. The strange thing is that birds of such widely differing species should retain the habit while others have given it up altogether.

Time was when British winters were what winters ought to be;
And those were days when beast and bird had wisdom to foresee
The need to store with industry the food stuffs that would keep—
Through months when ice stood thick and strong and snow lay
long and deep.

Some beasts stayed up, some went to bed and slept the winter
through,

And some would wake when it was fine and come abroad to view
The chilly world clad all in white, the wintry sun so red;
And finding nothing much to do they'd soon go back to bed.

Without those precious stores of food starvation were our fate;
We hid them very carefully, for sad it is to state
Not every beast nor every bird respects another's store,
And one who's finished all his own would look about for more.

But climates change; when winters hard gave slowly place to mild,
One might omit to make a hoard, by sunny days beguiled;
Or find that one was none the worse forgetting where 'twas hid.
Some still hide food no doubt because their early forebears did.

The badger is conspicuous among the beasts who get up from time to time to look at the weather and take a stroll if it is fine; it is a question of temperature, for, says the late Mr. Wheelwright (*Ten Years in Sweden*), in that

country where the winter is so much more severe the badger sleeps until spring, like the bear and dormouse. With us the only thorough hybernator is the last-named ; the field-mice, stores of food notwithstanding, may emerge into daylight when snow is on the ground. Mr. W. H. Tuck, a keen observer of wild life who lives in Suffolk, saw one at crumbs put out for the birds when snow lay deep ; of course it may well be that that mouse had finished his stock, and was obliged to come out for a meal.

Birds are fearful of heavy snow ; it was Mr. Tuck who discovered moorhens, blackbirds and bramblings in a rabbit burrow whither they had evidently retired for shelter during a fall ; and it may be that here we have the explanation of hares " going to vault ", for if birds seek refuge from a snowstorm thus why not small animals ? Suppose a hare overtaken by snow while a rabbit hole is in sight ; surely the native good sense of the hare would prompt her retreat into that shelter rather than suffer herself to be buried as she will do if caught while out in the open with no such refuge at hand. And, having thus found security from snow, is it incredible that she would seek it when pressed by hounds ?

It is interesting to mark the effect of artificial light on both animals and birds : the Burmese jungle folk take advantage of the attraction light has for deer. The business is carried out by two men ; one carries on his head an extinguisher-shaped basket plastered inside with mud to prevent the lamp within setting it alight, and his companion has a dah (sword-knife) ; they stroll slowly along the margin of the jungle where deer are most likely to be found feeding after dark, the fire-basket swayed slowly from side to side to quarter the ground. If a deer happen to be within range of the light it stands still, spellbound ;

and so standing is cut down by the man with the dah who creeps cautiously round outside the circle of light and comes behind the beast. The light, poor though it be, completely obscures the bearer and anyone beside him ; I tested this when setting out with the men one night. It only remains to add that this is the way game should *not* be killed ; the business is worth seeing as a curiosity.

An odd scene was witnessed one night on the Highland Railway during the exceptionally hard winter of 1894-5. The snow was so deep that the train, though drawn by three engines, was brought to a standstill near Dalnaspidal station, and after some hours a number of deer assembled near the engines, attracted by the glare of the fires ; they stood there "at gaze", seemingly unaware of the presence of passengers who climbed down from the carriages to see them.

The attraction of bright light for birds is abundantly proved by the numbers of all species that kill themselves against the glass of lightships and lighthouses during migration ; an attraction which has been turned to valuable account as a means of tracing the movements of birds in spring and autumn. The British Association for the Advancement of Science appointed a committee to make a Digest of the Observations on the Migrations of Birds at Lighthouses and Lightships, and with the aid of the men in charge of these an immense amount of information was assembled during a period of eight years, 1880 to 1887 inclusive. From the facts so collected it appeared that birds of every species flew against the lanterns, attracted by the light.

Bring a light, not necessarily brilliant, to bear on a roosting bird and the effect is curious. Mr. Shepherd has roused a wren to immediate song by throwing the ray

of an electric torch upon it ; and accidentally letting the light from an oil lantern shine on a slumbering robin I prompted him to sing. It is impossible to accept the theory that that robin thought it was sunrise ; the sleepest of birds could not have fallen into a mistake so grotesque, for the light given by that lantern is far from bright. There might be some excuse for Mr. Shepherd's wren when the electric torch was turned upon him.

Glancing at the other end of the animal scale, it is curious to observe the effect of artificial light on the earth-worm : turn your torch on the nine-tenths of its length on the damp grass, and the creature snatches itself out of sight as though stricken by Mr. Wells's heat-ray. The light seems to inflict physical pain.

The swallows are gathering in the small parties we know mean discussion concerning their flight to the south ; and within the month the first should be on their way.

I feel something of their inclination to fly south myself.



CHAPTER NINETEEN

The Rev. Edward Topsell on: Baboons—The Arc-
topithecus — Satyr — Bears — Buffe — Camel — Elk or
Moose—Elephant—Lion—Rhinoceros—Bison—Came-
lopardals—Crocodile.



CHAPTER NINETEEN

PASSING mention has been made in these random chapters of the Rev. Edward Topsell's *Historie of Alle Foure-Footed Beastes*; and temptation arises to look into that work. First published in 1607, a new and enlarged edition appeared nearly fifty years later, preserving all the charm of the original; charm that owes much to the credulity of the writer—or compiler; for Mr. Topsell acknowledges punctually the source of his many borrowings. The book, a handsome folio, profusely illustrated with as much imagination as adorns the text, was the first of its kind published in English.

If this pioneer of writers on Natural History appear unduly credulous, be it remembered that his was a credulous age; also that the sound Scots proverb anent travellers' tales had far greater force than attaches to it now; indeed, we may be tempted to think that seventeenth-century people who stayed at home would not believe a man *had* travelled unless he came equipped with tales calculated to evoke amazement.

Classification of animals had not been thought of when Mr. Topsell wrote that book; and he solved any difficulty he may have felt concerning its arrangement by the simple process of dealing with species alphabetically. Modern Science may take exception to, for example, the propinquity of Ape and Ass; but from the point of view of the ordinary reader the alphabetical method has merits;

you know just where to look for the account of any beast, whether it existed on land or at sea, or never existed at all. There are a good many of those last.

In some cases it is possible to trace the germ of fact from which the fiction has been developed ; native statements concerning the habits of animals are always worth attention ; if they do not prove wholly accurate they rarely fail to harbour an element of truth ; but the early traveller was not handicapped by truth, and gave his imagination free rein. The narrator of some of Topsell's stories relied wholly upon imagination, as when he who had—we will suppose—been in Egypt and told of the baboons there to be seen. Many kinds were known to man ; some were skilful anglers ; some were able to write and naturally to discern letters (inverted commas shall be spared), which talent, it is not surprising to learn, attracted the notice of the Egyptian priests. It was evidently not possible to distinguish at sight between the angling baboon and the literate, for when a beast appeared at a temple he was forthwith set down to an examination. The priests brought a writing tablet, pencil and ink which were given the visitor, that so by seeing him write they may make trial whether he be of the right kind. If he be the right kind the baboon quickly showeth his skill. We are not told what followed success in this, the earliest, examination ; whether the baboon received an appointment as acolyte in the temple or was taken into service of other sort does not appear ; the priests would hardly have taken the trouble to put the beast through his paces for nothing ! Perhaps the baboon showed that he had another accomplishment ; his kind bite deeply and eagerly, says Topsell, stumbling into accuracy.

He did not invariably rely upon travellers' tales ; in

the case of the *Arctopithecus*, or Bear-ape of America, he was able to write of his own personal knowledge, a specimen having been presented to him by a Frenchman ; but it must be admitted that the account he renders is rather sketchy. The animal, which my knowledge does not enable me to identify with any known species, was as big as a great African monkey, ash-coloured and hairy ; it was very deformed and the head and face resembled those of a child ; a curious thing about the beast was that though it lived in the open and rain was frequent yet was the animal never wet. A tantalizing item then occurs ; it would not eat the flesh of a living man, though it hath often been tried. Mr. Topsell manifestly invited the animal to feast on his gardener, cook or other servitor in turn ; a proceeding unseemly in a clergyman. He had that bear-ape in his possession for only twenty-eight days, dogs killing it ; but he might have found more to tell us about its habits and tastes.

A very interesting creature was the satyr, which Topsell believed to be of the ape kind, though its upper part was like that of a man while its extremities were those of a goat. The satyr, a native of western Ethiopia (could this have been the gorilla as embellished by the traveller?), was never seen by day ; it came abroad by night and lighted great fires about which satyrs danced to piping and a wonderful noise of timbrels and cymbals. We should expect better things of animals so advanced, but satyrs were in the habit of carrying their meat under the chin as in a storehouse. Satyrs could be tamed ; a pair made their appearance in the woods of Saxony—how they got there from western Ethiopia we are not told—and, the female being killed, her mate was caught. This satyr was taught to walk upright ; it is strange that an

animal which danced every night should require such tuition, but our Topsell is not always quite consistent ; also it learned to speak some words in a voice which, oddly enough, harmonized with its nether extremities, for it resembled the voice of a goat. However, that did not matter as what the satyr did say was without all reason. Which must have been disappointing.

Our author accepts without demur the ancient story that bear cubs are born formless and are licked into shape by their mother ; but he seems to be a little dubious about hybernation. He had heard a tale of a Swiss cowherd who, while descending a mountain with a great cauldron on his back, saw a bear eating a root ; the man waited till the animal left then sought out that root and ate of it himself ; and no sooner had he done so than he felt drowsy ; so drowsy that he lay down and, covering himself with that cauldron as protection against the cold, fell asleep : and slept the winter through, never rising again until the spring. Topsell does not believe that cowherd story ; he calls it a fable ; which, if a man will believe it, then doubtless this hearb may cause Bears to be sleepers, not for fourteen days, but four score days together. There is, he says, a pleasant vulgar tale that Bears eat that hearb, called in English Wake Robin or Calves' Foot, before retiring ; and by virtue thereof (without meat or sense of cold) pass away the whole winter in sleep. You see he is not quite sure of it. Yet he must have known that the dormouse, without the assistance of any herb, spends the winter in profound sleep, and might realize the possibility of bears doing the same. He accepts the report that a dead bear is buried by its friends.

Among the cattle tribe was a bison whose back was so long that seven men could ride it ; also the Buffe, a

Scythian species in whose ability to change colour as circumstances might suggest Topsell felt his reader would require aid to believe. The Buffe turned green against a background of foliage, or whatever colour might be appropriate when the background was rocks or stones. Do not the faces of men turn red or pale through joy, anger and other passions? he asks. The Buffe, having the head of an hart had also the fear of an hart, but in greater degree; therefore by secret operation he may easily alter the colour of his hair.

The author's description of the camel as a Disdainful and Discontented creature cannot be mended. Its parentage mystified Topsell; the roughness of its hair convinced him that, sometimes at least, it was sired by a boar. He does not advance this theory by way of accounting for its endurance; that, we know, is great; but the camel of our day has deteriorated in this respect if Johannes Leo Aser, whose authority Topsell accepts, did not exaggerate. That traveller affirmed that a camel would journey for fifty days without food, living the while on the fat of its bunchy back; and when that was finished on the fat of its skin, breast and ribs. It must have been a thin camel by the time these supplies of nourishment were exhausted, but it would continue to carry its load till unable to bear one hundredweight. We mark another change in camel nature; in those days neither spur nor stroke would induce the animal to hasten, but the Ethiopians and men of Barbary overcame disinclination to hurry by walking behind the camel and singing certain songs; this so revived their spirits, thin as they must have been by this time, that, forgetting their tired limbs, they set forward at a pace their keepers could hardly follow. Camels respond, unwillingly, to a series

of guttural grunts from the throat of the driver ; but even a Tibetan would hesitate to describe the utterances to be heard on the Simla road as song ; moreover, those grunts did not so increase the speed of the camel as to tax the pedestrian powers of the grunter.

The characteristics of the elk, or moose, deserve notice ; this beast was held to be a hybrid between hart and camel, or (as some saith) between hart and horse. Naturalists in the seventeenth century were slow to accept a species as new ; which, of course, is becoming in men of science, who ever move with caution. When an animal they did not know came within their ken they accounted for it by the assumption that it was a cross between two they did know. Thus, when Topsell saw at Antwerp an *Allo-camellus*, which seems to have been a llama, he decided recklessly that it must be the offspring of a camel and a mule. He may be pardoned for ignorance of the fact that camels do not occur in Peru ; but really he should have known that mules cannot reproduce their kind. Touching the elk, or moose, however : it was a melancholic beast dwelling in watery and marshy places ; its melancholy was due, if report be not false (a shade of doubt here crosses the mind of the author), to the fact that it suffered every day in the year from the falling sickness. This would be enough to explain its gloomy outlook on life had that malady been incurable ; but it was so easily, so quickly, remedied we find it difficult to accept chronic ill-health as a reason for the melancholy of the moose ; all it need do was to touch with the right fore-foot its left ear ; when the sickness was healed. That huge upper lip required the animal to feed in a curious way ; the moose could only graze walking backwards. That it browses, and only eats grass, mosses, &c., occa-

sionally, is a detail that need not impair our pleasure in a traveller's tale.

Mr. Topsell must have enjoyed himself when treating of the elephant ; he pictures a beast singularly attractive. So loving was the elephant towards his fellows that he would not eat alone, but, having found meat would go and invite the others to the feast, more like a reasonable civil man than a beast. The admiring author did not know that elephants feed in herds, therefore an individual need not go far to issue those invitations, if indeed it were necessary at all. Then the animal had æsthetic tastes ; taken to meadows he would by his quickness of smelling choose out the sweetest flowers, bestow them in the basket carried by his keeper, and arriving home, would not look at his dinner until with his own trunk he had trimmed the brim of his manger. Topsell's elephant had what the author rather vaguely calls a kind of religion ; he saluted the sun at its rising, and observed the course of the sun, moon and stars ; which latter indicates interest in astronomy ; the seventeenth-century elephant was capable of much.

The dignity of the lion required a large and copious tractate in which to do it justice ; but even with limitations of space Topsell makes the animal one of rare interest. Now and again he finds room for a doubt ; that story of the lion tracing with his tail a circle in the dust round his prey to warn off other beasts who know that mark and for their lives dare not cross it, he finds hard to accept : Believe this who list, he says. He has, however, no carking doubts when the relations of lion and man are under notice. Thus, there was a lion whose cub had been killed by a bear ; the lion tracked that cub-slaying bear to the tree in which it, conscience-stricken, had

sought refuge ; and finding himself unable to climb that tree, the lion sought out a carpenter who was hewing wood near at hand, made the man understand what was required of him, and had him cut down the tree ; and forthwith wreaked his vengeance on the bear. Ælian is Topsell's authority for the statement that the lion in Libya enjoys many things in common with man ; and Ælian, a gentleman of simple mind, told how lion and man drink at the same fountain ; how the lion if at any time he be deceived in his hunting and cannot get to satisfy his hunger then goeth he to the houses of men ; and there if he find the man at home he will enter in and destroy except by wit, policy and strength he be resisted. We should expect better behaviour from lions who drink with man from the same fountain. If the householder were not at home what followed suggests that the Libyan lion was sensitive :—if he find no man but only women, they by railing upon him and rebukes drive him away ; which argueth his understanding of the Libyan tongue.

The lion hates without measure the wild ass : here we have the germ of a fact ; the zebra is related to the ass, and the lion's antipathy to the animal takes the shape of making zebras a staple article of diet. The lion may hate him alive, but loves him dead.

Let us not pause to inquire why lions eat monkeys when indisposed ; they eat them as physic ; nor shall the circumstance, interesting though it be, that lions sleep with their eyes open, detain us.

It is to be deplored that more is not told us concerning the rhinoceros ; the more, because Topsell holds it the Second Wonder in Nature, doubting whether his readers can believe in the existence of so marvellous a creature, despite the picture (quite a good one) drawn by Conrad

Gesner of a rhinoceros at Lisbon. Interest in the beast is stimulated, yet starved, by its singular susceptibility to feminine influence. It loved virgins so much that the wildest would come at the summons of a maid and fall asleep before her ; an unusual way of showing devotion and one that wrought the undoing of the rhinoceros ; for being so asleep he is easily captured. We are not told what the capturers did with the animal when he had been taken in this unfair fashion ; modern negroes would kill and eat him.

We should like also to know more about the bison whose blood was so hot that if the body were pierced by spear, dart or sword the weapon is made so weak and soluble that it comes out flexible as lead. This animal had a remarkable tongue ; such was its length and strength that with it the owner could draw unto him any man or beast of inferior condition ; further the tongue was like a file ; it could lick the victim to death.

That bison's tongue was rivalled by the one bestowed (by travellers) on the camelopardals ; in which we recognize an effort to portray the giraffe ; the tongue was 3 feet long, the neck 15 feet and, *vide* illustration, it had goat's horns. It was tractable, if taken young ; easy to be handled, so that a child may lead it with a small cord about the head. Topsell seems to attribute the animal's docility to its inordinate vanity ; for when any come to see them they turn themselves round as it were of purpose to show their soft hairs and beautiful colour, being as it were, proud to ravish the eyes of the beholders.

Strange and ingenious was the method by which the ichneumon, an Egyptian species, killed the crocodile : it would watch till the animal opened its mouth to admit the cochiller, a small bird, which picked from its teeth

the morsels of meat lurking thereamong. The labours of this feathered toothpick being comfortable to the crocodile it would sleep ; and the ichneumon, seizing its opportunity, then rolled in sand, sprang into the crocodile's mouth and down into its belly, where it sits close upon the crocodile's liver and feeds full sweetly upon his entrails ; and finally eats its way out through the flank of its victim, careless of its agonized writhings. Topsell does not feel sure that he has been quite correctly informed concerning the doings of the ichneumon ; pointing out, justly, that the animal could glide down the crocodile's throat more easily if it omitted that roll in the sand ; for obviously a smooth body glides better than a rough one.

He had a low opinion of crocodiles—wherein moderns will agree with him. What roused his wrath was the shabby ruse with which the creature lured men within reach : he sobs and sighs and weeps as though in extremity ; and when some tender-hearted black man came to ask what can be the matter, the crocodile would catch and eat him. Some said the brute ate the man first and wept afterwards but, however it be, it denoteth the wretched nature of hypocritical hearts which beforehand will with feigned tears endeavour to do mischief, or else after they have done it be outwardly sorry.

Bartholomew Anglicus, a Franciscan monk who wrote a *Bestiary* about the middle of the thirteenth century, gives a slightly different account of the crocodile's method :—If the crocodile findeth a man by the brim of the water or by the cliff, he slayeth him if he may, and then he weepeth upon him and swalloweth him at the last. Bartholomew's crocodile at any rate did not lure its victim within reach by fictitious sorrow.



ICHNEUMON AND CROCODILE

A very curious trait in the crocodile was its susceptibility to the human eye—the right one. It would run away from a man if he winks with his left eye and looks steadfastly on it with his right. If this be true, says Topsell with unusual caution, it is due not to the value of the right eye, but only to the rareness of sight which is conspicuous to the Serpent (the beast was classed as a Serpent): an explanation rather obscure. Topsell's doubt was probably due to the reflection that if the crocodile was frightened away by means so simple as winking, the victims it attracted could easily put it to flight.

If Necessity mothers Invention
It behoves us to look for the sire ;
May Credulity wrapt in attention
Not to fatherhood surely aspire ?



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